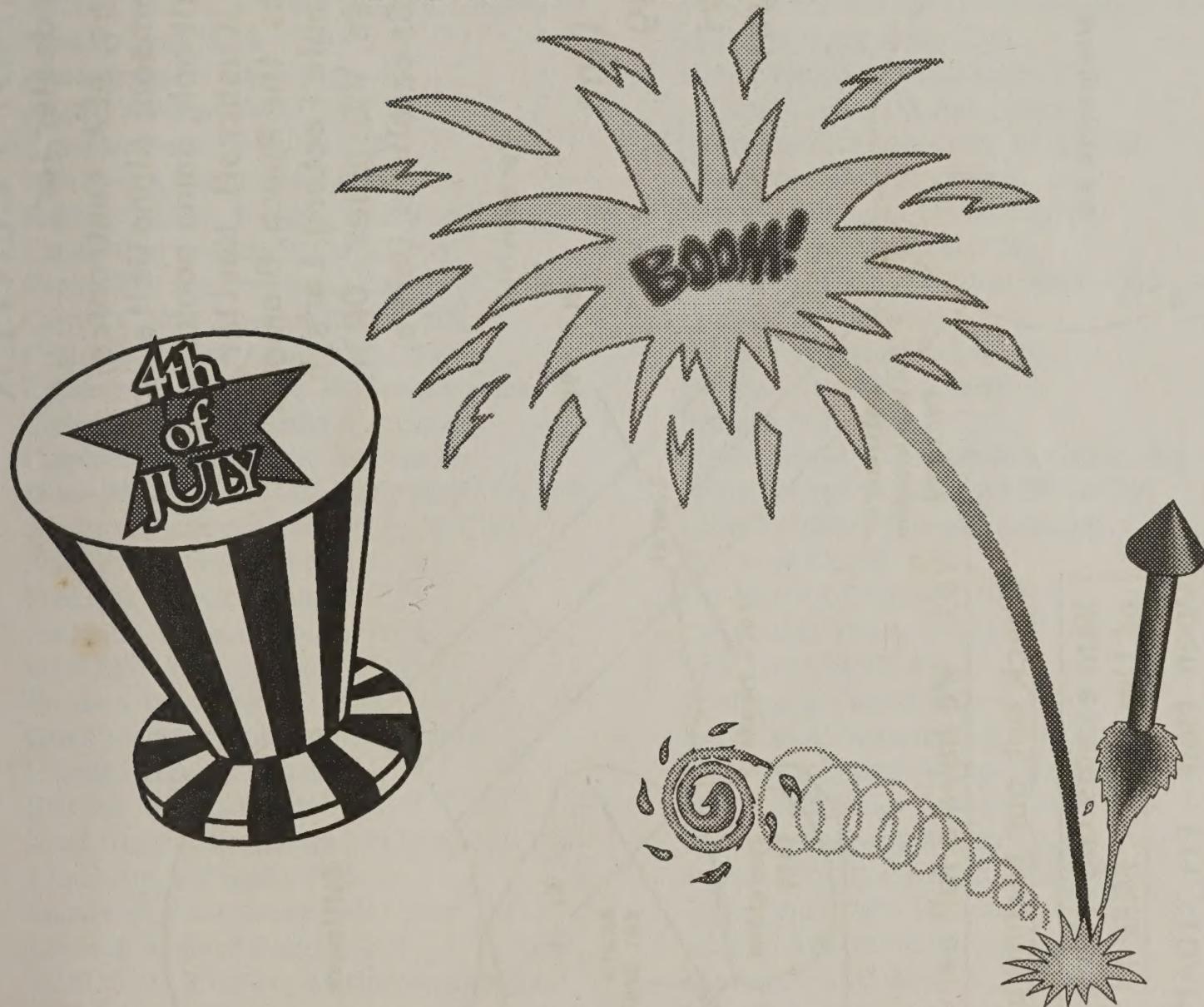




JULY 1994



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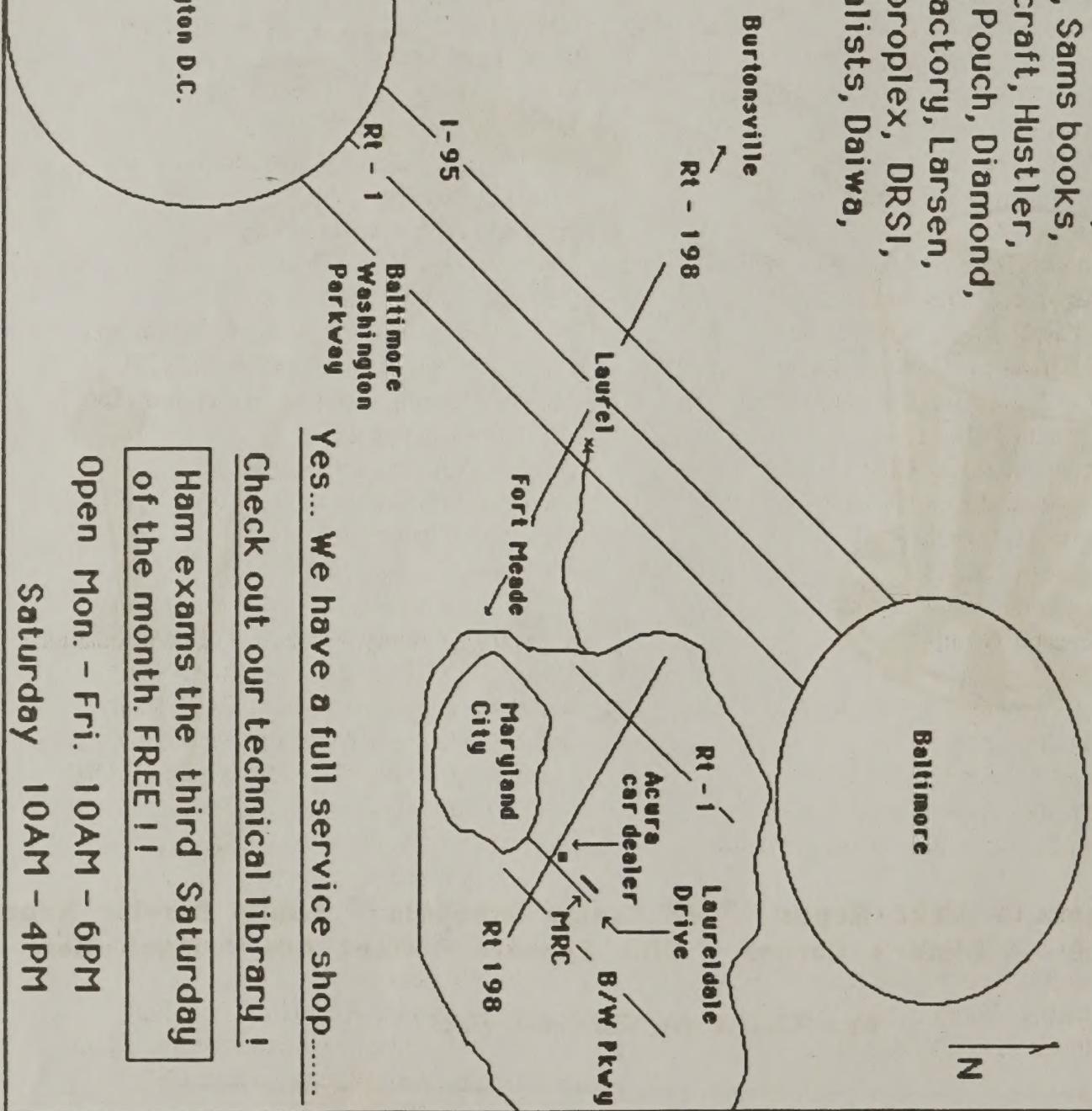
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Deadline for copy is the 5th of the month. All contributions are welcomed, but the editor does reserve the right to edit or reject any portion of any copy.

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Subscriptions received after die 15th of the month will be s with the following month's Issue.

COLUMNS

Member Clubs	3
Coming Events	5
FCC Highlights	7
ARRL Report	12
Elmers Corner	16
DX DX DX	17
Traffic Fun	19
VEC Co-op	21
Training	26

CLUBS

Metrovision Amateur TV Club	30
QCWA #137	30
Shenandoah Valley ARC	31
Anne Arundel Radio Club	32
AMRAD	32
Arlington Amateur Radio Club	33
Rock Creek Amateur Radio Assn.	34
Capitol City Amateur Radio Society	34
Fauquier Amateur Radio Club	35
Green Mountain Repeater Assn.	36
Herndon Repeater Group	36
Laurel Amateur Radio Club	37
WMA/Federal Systems (IBM)	38
MADRAS	39
Maryland Emergency Phone Net	39
Metropolitan Communications Network	40
Mid-Atlantic DX Assn.	40
Mount Vernon Amateur Radio Club	41
Northern Virginia FM Assn.	42
Capitol Hill Monitor Net	42
Prince George's Wireless Assn.	43
Springfield Estates Elementary School ARC	43
Southern Maryland Amateur Radio Club	44
Southern Patuxent Amateur Radio Club	45
Vienna Wireless Society	46

ADVERTISERS

Maryland Radio Center	2
Electronic Equipment Bank	6
West Electronics	11
Amateur Radio Of Hagerstown	15
Scanware	18
Rayma Electronics	33
Packet Gadgets	40
2 Land Communications	41
R.F. Connection	48
Mugs & Stitches	48
G & G Electronics	49
Ham Radio Outlet	53
Electronic One-Stop	53

COMING EVENTS

June 25-26* Field Day '94
July 3 Murgas ARC, Wilkes Barre, PA
July 4 Harrisburg, RAC, Bressler, PA
July 10 Genesee RA, Alexander, NY
July 10 North Hills ARC, Pittsburg, PA
July 10 BRATS, Timonium, MD
Aug. 7 Mid-Atlantic ARC, Warrington, PA
Aug. 7 Southem Patuxent, Upper Marlboro, MD
Aug. 14 Delaware-Lehigh ARC, Easton, PA
Aug. 14 Summit ARA, Westminster, MD
Aug. 27 PROS, Chaffee, NY
Aug. 28 Gloucester Co. ARA, Mullica Hill, NJ
Aug. 28 Tri-State ARC, Matamoras, PA
Sept. 10 Radio Assn of Erie, Erie, PA
Sept. 11 Butler Co, ARA, Butler, PA
Sept. 11 FARFEST'94, Gaithersburg, MD
Sept. 17 Buffalo Hamfest, Buffalo, NY
Sept. 18 S. Jersey Radio Assn., Pennsauken, NJ
Sept. 24-25 York, PA
Oct. 15 Radio Amateurs Greater Syracuse, Syracuse, NY
Oct. 23 R.F. Hill ARC, Sellersville, PA
Oct. 30 Mason-Dixon, Westminster, MD

F.A.R.FEST 1994

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CONVENTIONS & CONFERENCES

July TBA Central Atlantic ATV Network Conference, North East, MD
Aug 6 Traffic Handlers Picnic, Old Forge, NY (Contact K2KIR or W2MTA for Info.)
Sept. 24 Central Atlantic ATV Network Conference, Dover, PA
Oct. 1 Mid-Atlantic VHF Conference, Horsham, PA

Thanks to Hugh Turnbull - W3ABC and Bob Milligan - KI4MB for providing much of the information above. Please send a copy of your Hamfest Flyer and Information to Auto-Call and keep us advised of any changes. We are anxious to provide our readers with timely information and help to avoid possible conflicts when scheduling activities.

THE NEW GENERATION ROTATORS

THEY'RE NOT YOUR FATHER'S HAM "M"

Rotator Comparison Chart

Model Specs	The New Generation								Old Generation		
	Create RCS	Create RCSA	Create RCSB	Create 105SX	Emoto 747SRX	Emoto 1105MSX	Emoto 1200FSX	Emoto 1300MSX	Emoto 1800FSX	Times HamIV	Times T2X
Rotator	43	116	160	37	50	57	143	215	267	67	83
Tower F/B											
GD2 Kgm ²	N/A	N/A	N/A	100	400	700	1000	1800	3000	N/A	N/A
Ant. Inertia											
Bm. Static	506	1085	1450	215	502	717	1290	1792	2150	417	750
Tower F/B											
Wind Load in Tower (lb)	10	25	25	11	22	27	27	33	36	15	20
Mast mount	4	5	7	5	9	12	12	15	16	7.5	10
Rotating speed 360°	60-150 sec variable	60-150 sec variable	60-150 sec variable	55	35	65	40	77	80	60	60
Rot. Delay	None	2 sec	3 sec							None	None
Preset	Opt 3	Opt 3	yes	no	no	Opt	yes	yes	yes	no	no
W-Motor	no	no	no	no	yes	yes	yes	yes	yes	no	no
Power	80VA	140VA	200VA	70VA	70VA	70VA	90VA	120VA	150VA	26V AC	26V AC
120V 60Hz											
Mast Del	2.25 in	2.25 in	2.25 in	2.2-4 in	6-2.4 in	1.6-2.4 in	1.6-2.4 in	2.4-3.1 in	3.5-5.5 in	2 in	2 in
Control wire	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	8 cond	8 cond
Vertical	880	1540	1540	660	1100	880	1760	1760	2200	400	800
Mast load #											
Rotor weight	13	17	20	7.5	9	11	11	13	39.5	24	28
Brake type	worm drive	worm drive	worm drive	disk	friction	friction	friction	friction	friction	wedge	wedge
Sail center	yes	yes	yes	Adj	Adj	Adj	Adj	Adj	Adj	no	no
mast clamp											
Spacous nooks	3-6	3-6	3-6	6	1-6	6	2-6	6	6	4-7	4-7
Phone (\$)	\$269.00	\$449.95	\$799.00	209.95	399.00	589.00	679.00	1099.00	3272.00	369.95	439.95
Wind Press	\$379.00	\$528.95				\$663.00					

Notes

- 1. Turns Tribander 470 in 35 seconds
- 2. Variable speed 40 sec max
- 3. EEB price as of 5/91 sub to change
- 4. T2X and HamIV have same motor and gear train parts
- 5. Wind load in Sq. Feet

3. Variable speed w/SCR constant rotational torque at any speed

6. 120/220 input transformer

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An entire generation of amateurs have grown up knowing only one rotator manufacturer. Those old favorites are still popular. But, now a new generation of rotators are out to set high standards with innovative features such as: large machined steel gears, cast and machined aluminum cases, solid state controllers for smooth start/stop, preset, computer control and circular position indicators.

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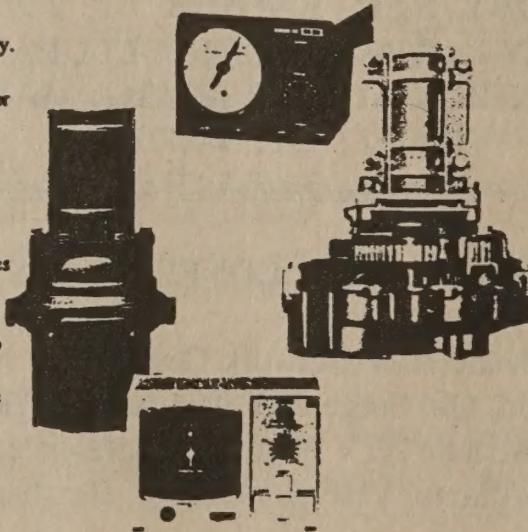
CREATE is serious about long term reliability. The CREATE RCS series rotators were designed with the serious DX'er in mind. Three models for medium, large and ultra large antenna arrays are available.

ROTOR FEATURES OF RCS SERIES

* Large strong reduction gear system provides long term reliability during years of rugged operation. * Worm drive gearing provides powerful braking force and low backlash to keep your antenna in position during severe weather conditions. * Cast and machined aluminum case provide the strength required for long lasting service. * Mast clamp guides for ease of mast installation.

CONTROLLER FEATURES OF RC5 SERIES

* Speed control using silicon control rectifiers allows slow speed without reduction in rotation torque. Rotating spec is constant 60 to 200 seconds per 360 degrees. * Reverse delay control (RDC). Delays reverse command to rotor until antenna is at rest. Prevents damage to rotor antenna and tower system. * Circular dial indicator, for quick accurate reading of antenna direction. Great circle overlay available for USA (west-cent-east). * Preset (on 3 models) a must for quick setting of antenna direction. Just turn the knob to the new heading, the rest is automatic. Won't waste your time holding down the brake lever and wait.



EMOTO ROTATORS

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$$GD^2 = W \times \frac{L^2 + B^2}{12}$$

Where: W: weight of antenna (kg)
L: length of longest element (m)
B: length of boom(m)

GD² EXAMPLES: Kgm²

TH7DX (437), TH3JR (63), 205BA (675), DISC7-3 (1300), A3S (61), A4S (173), KLM KT34XA (378), 3 ELE TRIBAND (150), 6 ELE TRIBAND (400), 20M 5 ELE (750), 15M 6 ELE (650), 40M 2 ELE SHORT BOOM (240), 40M 2 ELE FULL BOOM (800), 80M 2 ELE (1500), STACK ARRAYS 10M 5 ELE (60), 15M 5 ELE (200), 20M 5 ELE (750), 60+200+750=1010

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FCC HIGHLIGHTS

By Jack Kelleher, W4ZC

The FCC Forum at Dayton

Your reporter did not make Dayton this year. There is an excellent report on the Forum, in the W5YI Report for May 15, on which the following material is based. The FCC Forum offers a unique opportunity for information from the Commission, and so we are giving it the space we think it deserves.

John B. Johnston, Chief of FCC's Personal Radio Branch, explained how the rule making process works. Johnston said that many rulemaking proceedings begin with a petition; and some 25 to 50 of these are filed annually, most by individuals, but some by organizations. Many are frivolous, repetitive, based on misinformation, or otherwise unacceptable, and are immediately denied and dismissed.

The petitions that have merit are given a rulemaking (RM) number and a 30-day preliminary comment period assigned.

If the comments (and the costs associated with the rule change) warrant a rule change, a Notice of Proposed Rulemaking (NPRM) is prepared and presented to the Commissioners for their consideration. If they adopt it, it is given a Docket number. This event is announced by a news release. The text follows shortly thereafter so that all can see the exact proposal.

The amateur community is then on notice that the FCC is thinking about changing the rules. Johnston said The very first thing you should do is obtain a copy of the proposal and read it carefully. Determine the issues that are important to you.

Two dates are specified in the Notice. The first one is for your comments. This is where you put into the official record a statement of your support or opposition to the proposal. You can also recommend improvements. For the amateur service, a long comment period is usually provided - - - at least sixty days. Some have been for six months. All comments must be filed with the Secretary of the FCC.

After the comment dates have closed, the record is carefully reviewed and a Report and Order is drafted. If the Commissioners adopt it, a date is given for the new rules to become effective.

As for actual rulemaking, William Cross summarized the Dockets approved during the past year: Novice exams were placed under the VEC System; you got the protection that you asked for against state and local police seizing your transceivers; your no business rule was revised; Novices got the entire 1.25 meter band; you got your weak-signal subband there; and the impediment to VHF high speed digital systems was removed.

Cross continued You made all of this possible. As we said before, the FCC has no master plan for the amateur service. It is primarily through your petitions and comments that we develop our understanding of what it is that the amateur community needs and wants.

Continued on next page

John Johnston reported on the status of some of the current rulemaking activities:

- The vanity call sign item was initiated by the FCC because we need to know what kind of system you want: None of you filed a petition.
- The proposed temporary operating authority to new hams (RM-8288) was in response to complaints about the four to eight weeks it can take for Gettysburg to process a license application. Johnston noted that it can take another four weeks or longer for the application to reach Gettysburg from the VECs. Regardless of the fate of the immediate temporary operating authority proposal, the process can be speeded up by minimizing mistakes on the application, and by implementing electronic filing of applications.

Regarding Part 97 rule changes, Johnston expressed his belief that Part 97 is basically meeting the amateurs' needs.

- Subparts A (General Provisions) and B (Station Operation Standards) provide a solid baseline of rules for amateur operation in general
- Subpart C (Special Operations) is there for new systems and situations requiring accommodation. This is where there are accommodations for auxiliary stations, beacons, repeaters, space stations, telecommand, etc. Your new accommodations for weak signal operation and for message forwarding systems went into Part C.
- Subpart D (Technical Standards) has your frequency privileges. New Novice privileges went into this subpart.
- Subpart E (Providing Emergency Communications) seems to be serving you adequately.
- Subpart F (Qualifying Examination Systems) is just that. This is the subpart that was changed to move the Novice exams into the VEC System.

Concluding this portion of his remarks, Mr. Johnston said Sometimes we hear complaints that Part 97 changes too often - - - - but we argue that the frequent changing of the rules is proof that you are carrying out your obligations with determination and vigor. You are experimenting with the latest technology. Your numbers are growing. You are testing out novel ideas. We want to keep our perceptions of your radio service current. We do not want to waste time in defending requirements that no longer serve a useful purpose. The permissible communications rule is the perfect example.

In the realm of current petitions for rulemaking, Mr. Johnston mentioned the long-standing issue of automatic station control on the HF bands (see several previous items in this column on RM-8218). He noted that a draft Notice of Proposed Rulemaking is in the hopper, which will be the amateur community's opportunity to put comments on the record.

Continued on next page

Addressing petitions for changes in operator classes and examination requirements, Mr. Johnston said: The present structure — is the result of some six major rule makings over the past 45 years, as well as countless relatively minor rule makings. These proceedings have produced several thousands of comments. The current operator classes and examination requirements were developed in accordance with the expressed desires of the amateur service community. You have indicated on each occasion that you strongly desire to preserve communications by telephony. So, in view of the ambitious FCC agenda for cable regulation, PCS (personal communications systems) the information superhighway, and so forth, it would take a very convincing argument to show the Commissioners that yet another rulemaking for amateur operator license classes is needed.

UHF Reallocations

In our April and June columns we reported on a preliminary plan by the National Telecommunications and Information Administration (NTIA) to begin implementing the Congressional mandate to transfer 200 MHz from Government to the private sector. The proposed Plan covered 25 MHz of the 2300 - 2450 MHz band

The FCC has now issued a Notice of Inquiry on proposed reallocation (ET Docket 94-32) of the Ultra High frequencies mentioned above, plus 25 MHz in the SHF band, 4660 - 4685 MHz.

The FCC requested comment on two specific areas of concern to amateurs:

- Will the recommended reallocation avoid excessive disruption of existing use of Federal Government frequencies by amateur service licensees? Is the 2 MHz segment at 2400 - 2402 MHz that the Department of Commerce excluded from consideration for reallocation sufficient to avoid disrupting existing amateur-satellite operations?
- Will new non-Federal services in these bands be able to share the spectrum with existing services, specially with amateur operations in the 2390 - 2400 MHz and 2402 - 2417 MHz bands, and with the fixed-satellite service in the 4660 - 4685 MHz band? If yes, what are the appropriate technical sharing criteria? What should be the relative status of users? What effect will existing users have on competition and on access to new services?

Petitions Denied

The FCC has denied two petitions for further changes in Part 97.113 (Permitted and prohibited communications; PR Docket 92-136). Both petitioners, David Popkin, W2CC, and Rolland D. Cummings, WA7EDA, sought permission for amateurs to retransmit certain U.S. Government broadcasts, such as time signals. Popkin also proposed changing the language (permitting paid teachers to use Amateur Radio in their classrooms) from classroom instruction to instructional activity. The Commission said that the ideas expressed had been considered during the public comment period for PR Docket 92-136.

Continued on next page

Another petition, from the Cass County (Indiana) Amateur Radio Club (CCARC), would have eliminated the Advanced and Extra Class amateur licenses. The CCARC stated that the majority of amateur operators are dissatisfied with the current operator license class structure, and that most other countries have a three class license structure. CCARC proposed to combine the present General, Advanced, and Extra Class operators with Technicians who have passed a 5 wpm Morse code exam, granting them all full privileges.

The FCC replied that We believe - - - - that the views previously expressed by members of the amateur service community through thousands of comments in numerous rule making proceedings continue to be valid - - - - Hence, in our view, the amateur community, by and large, is satisfied with the current structure, the fundamental purpose of which is the encouragement of the amateur service in the United States through rules that provide for advancing skills in the communication and technical phases of the art.

ITU Conferences

The FCC has begun to prepare for future World Radiocommunication Conferences (WRCs). The Commission is seeking information to assist it in developing proposals concerning the Agenda of WRC-1995, and in developing and refining proposals for the agendas of WRC-97 and WRC-99.

R. B. (Bob) Vernall, ZL2CA, a frequency planning engineer at New Zealand Telecom, told W5YI at Dayton that he believes a resolution impacting ham radio could be adopted at WRC-95. It would permit administrations to decide whether or not they wished to retain the Morse code requirement as a prerequisite for HF Amateur Radio operation. He said that his country was in favor of such a position.

Correction to April 23rd banquet report.

Gordon Messmer, W4IQA was listed among those present and receiving a 55 year award. Unfortunately Gordon was unable to attend, and should have been listed in the unable to attend group. Conversely, George Dively, W4CLR, was present to receive his 60-year certificate.

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AMERICAN RADIO RELAY LEAGUE REPORT

BY John Swafford, W4HU

League urges action on call sign selection.

The ARRL has filed reply comments in the FCC's proposal to institute a "vanity" call sign program (in PR Docket 93-305). The League said that the vast majority of the 109 comments filed on the proposal favored it, in general, with the major concerns being how to fairly administer it.

There were fewer than five comments opposing the proposal and, while they made what the League called "thoughtful and important points," they did not seem to represent more than a small minority opinion.

One commenter was concerned about the cost of the program to taxpayers, the reissuing of call signs of deceased amateurs, and the diluting of the practice of issuing call signs more or less chronologically, which thus makes a person's call sign an indication of how long she or he has been licensed.

The ARRL in its reply comments said that the issue of cost already had been settled, in that amateurs themselves would pay for the privilege of selecting a call sign.

Regarding Silent Key call signs, the League said that by giving family members and clubs the first opportunity to apply for such call signs, "well known and respected" amateurs' call signs could be preserved.

Finally, the League said that a program allowing amateurs to select a call sign would enhance the fraternalism of the service and promote a sense of accomplishment (regardless of how long a person had been licensed).

One of the commenters on the proposal was Frederick O. Maia, W5YI, who proposed that the Commission establish a "Vanity Call Sign Administration" program in the private sector. Maia suggested that administrators could be appointed by the Commission and permitted to charge a fee for preparing an application for a special call sign.

The ARRL said that, while nothing prevents entrepreneurs from providing such a service, including the useful one of making available the latest database of available call signs to applicants, the FCC has no authorization from Congress to "accept the voluntary services of private sector entities in the administration of [such a] program."

The League said that Maia's proposal was flawed in that it suggests that the average radio amateur is incapable of filling out the paperwork necessary to apply for a vanity call sign. The League told the FCC that radio amateurs are fully capable of correctly completing Commission forms and submitting them with payment.

Continued on next page

The League said that if there were to be a "flood of calls" to the FCC's Gettysburg facility, from amateurs asking questions about the program, then that would be an indication of problems with the instructions or the application form, or both.

"Maia's proposal is cumbersome," the League said, "bureaucratic, and adds not a whit of value to the entire application procedure from the point of view of the applicant."

The League urged the Commission to proceed with a Report and Order on the "vanity" call sign proposal, incorporating the minor modifications suggested in the earlier ARRL comments.

Broad agenda for ARRL volunteer committee.

The ARRL Volunteer Resources Committee met in St. Louis, Missouri, on April 23, 1994. The committee:

- o Recommended to modify the Amateur Auxiliary logo to include the League diamond.
- o Reviewed the status of the Field Organization Volunteer of the Year Award.
- o Declined a proposal from REACT International to conclude a memorandum of understanding between them and the ARRL.
- o Supported cooperation between adjacent ARRL Sections as the best means of incorporating a "jump team" concept into the existing ARES framework.
- o Reviewed a staff report on a memorandum of understanding with the National Disaster Medical System (NDMS) and decided to take no action until more ARRL Field Organization NDMS-related activity is evident.
- o Reviewed a staff report on the League's participation in the National Volunteer Organizations Active in Disaster (NVOAD) and recommended that membership be extended for a year while monitoring the activities of NVOAD more closely.
- o In response to Minute 41 of the 1994 January board meeting, the committee reviewed a staff report and recommendations regarding the feasibility of a system of technical awards and development of a set of criteria. A draft has been sent to the Future Systems Committee and Long Range Planning Committee for review and approval.
- o Approved a new policy to accept electronic filing of Field Organization appointments with the Field Services Department. FSD now can accept new appointments in any form, and aid to Section Manager.
- o Agreed to possibly pursue the idea of "Amateur Radio Good Samaritan Laws" at the state level, beginning with input from General Counsel Chris Imlay, N3AKD, subject to review by the full ARRL Board of Directors.
- o Agreed that the responsibility for ensuring that affiliated clubs do not abuse the 51% ARRL membership rule lies with the appropriate ARRL Director, during the application process.
- o Reviewed a report on volunteer examiner availability in Alaska and expressed its feeling that the situation is being satisfactorily managed.
- o Discussed the possibility of allowing ARRL volunteer examiners to review exam results with failed applicants.

Continued on next page

o Asked for language to be added to convention rules regarding the changing of dates for ARRL-sanctioned conventions and hamfests.

o Discussed the cost of travel for ARRL officials in the Pacific and Virgin Islands Sections.

Briefs.

o Anne Rinaldo died May 17 in Virginia. The wife of ARRL Technical Relations Manager Paul Rinaldo, W4RI, was injured in a fall on May 1 and never fully regained consciousness.

A memorial service was held on May 20 in Bryn Athyn, Pennsylvania.

o In our story in the last issue about New Hampshire House Bill 1380, exempting Amateur Radio towers and antennas from real estate property taxes, we neglected to report that Tom Kirby, W1EJ, a member of the New Hampshire House of Representatives, was a co-sponsor of the bill, along with Ralph Rosen, W1HSB.

The ARRL Outgoing QSL Service reminds DXers that the fee for users is two dollars per pound or portion of a pound. The fee is one dollar for ten or fewer cards. This must be paid in currency or check (no stamps, no IRCs).

And help your incoming bureau, too, by sending only 5 x 7.5 inch or 6 x 9 inch envelopes, with plenty of stamps.

o It's once again ARRL election time, July QST will carry the announcement, with ARRL Directors and Vice Directors up for election in the following ARRL divisions: Central, Hudson, New England, Northwestern, Roanoke, Rocky Mountain, Southwestern, and West Gulf.

o Publishing the E-mail address for The ARRL Letter -- <jcain@arrl.org> -- has generated some activity from club editors. Great! The text of The ARRL Letter can be downloaded from the ARRL HQ landline BBS (Hiram), in slightly expurgated form (without the photo captions). Hiram's number is 203-666-0578.

When you have news that might be of interest around the country, be sure to get it to us right away, too. Thanks!

We are getting new computers here (your editor spent several nonproductive days last week learning new software and tricks) and most of us will go to PC school for a day next month.

And speaking of Hiram, his human overseer is Jay Mabey, NU0X, who has been promoted to Senior Assistant Manager in the Field Services Department (and will be the next victim of our QST "Behind the Diamond" pillory).

o John DeVoldere, ON4UN, visited HQ earlier this month, with Roger Vermet, ON6WU. John is the author of Low Band DXing, just out in a very revised second edition. John spent much of his time here staring at antenna modeling programs on the computer screen of Senior Assistant Technical Editor Dean Straw, N6BV.

Continued on next page

o Members of the ARRL Board of Directors met in Savannah, Georgia, on May 6 and 7, to begin developing a strategic plan to guide the ARRL in preparing for the opportunities and challenges of the 21st century. The ARRL Long Range Planning Committee had recommended that because of the importance of strategic planning, the effort should be initiated separate from the regular business of a Board meeting. The process that was begun in Savannah will be continued, with the objective of completing a draft plan by the end of 1994.

o The ARRL/VEC had 174 exam sessions registered for ARRL's Spring National Exam Day on May 14, 1994. A half-dozen or so were coordinated under other VECs, with the remainder being ARRL/VEC.

The 10th anniversary of the ARRL/VEC is coming up this summer; July QST will feature a remembrance of the genesis of the Volunteer Examiner System by the League's first VEC manager, Curt Holsopple, K9CH.



**WE HAVE
MOVED TO
A NEW
LARGER
LOCATION!**

Y'all Come !
Amateur Radio of Hagerstown
has relocated to the
North Village Shopping Center

Lots of FREE PARKING

Easy Access to Amateur Radio -
Interstate-70 West to Interstate-81
Follow Interstate-81 North to Exit 9.
Its just 0.6 miles along Maugan's Ave
(Towards McDonald's) to the
North Village Shopping Center
(301) 416-8079 N3HTN, Mgr.

Elmers Corner

By Paul Wilkins, AB4CY

Spread-Spectrum, making room for more of us.

In the early 1960's Single Sideband Suppressed Carrier (SSB) revolutionized ham radio voice transmissions. It was a radical change in technology over amplitude modulated telephony (AM) and was forced into play by the growing number of hams using wideband AM voice signals in our narrow frequency space. SSB cut the normal AM double sideband width in half and eliminated the useless carrier, making room for a lot more hams on the HF voice bands. Since the 1960's there has been a fourfold increase in licensees but no increase in spectrum space and it's getting pretty crowded again. New modulation techniques may come into play in the future to increase the number of signals that we can squeeze satisfactorily into the limited spectrum space. The present SSB crowd will become the old-timers, replacing the nostalgic AM groups of today or at least joining them.

One of these future modulation techniques is referred to as spread-spectrum because instead of trying to concentrate the transmitted energy into a narrow bandwidth it is intentionally spread out over a much broader bandwidth, maybe a hundred to ten thousand times as broad as conventional techniques. This technique has several effects; one, the average signal power at any one frequency is drastically reduced which can reduce QRM, two, it avoids strong constant interferences on single frequencies, and three, conventional CW, FM, and SSB signals can be rejected. A spread-spectrum receiver only responds to a spread-spectrum transmission with the same frequency hopping sequence. The frequency spread is at the carrier frequency, not the modulation frequency. While you are talking into the mike at audio frequencies, your carrier is changing (hopping) to a controlled series of frequency positions, stopping for a hundredth of a second and then moving on to another frequency in the series. Of course the receiver must know what the next frequency will be to be able to pickup the next part of the modulation cycle. This required synchronization is one of the sticky problems in spread spectrum because it requires the receiver to be in sync with the transmitter to be able to decode the transmitted message. Present day techniques use a local radio station that can be heard by both parties as the common time base. Tomorrow it may be one or more satellite transmissions that provide the synchronizing signal reference worldwide.

Spread-spectrum technology developed in trying to transmit radio signals that would be difficult, if not impossible, to detect with a conventional radio receiver. Without the knowledge of the frequency changing sequence there is little chance of demodulating a signal. The FCC has authorized only three code sequences for amateur SS experiments so that transmissions may not legally be hidden. They also have rules concerning periodic station ID using conventional techniques.

So, here is a potential transmission technique that can reduce QRM, provide retrievable signals that are below the noise threshold of conventional receivers and, accommodate a much larger number of transmissions in the same frequency space. The three different frequency sequence codes alone can theoretically provide for tripling the band capacity although the background "hash" will increase with the larger number of users of a particular band space.

Spread-spectrum, much the same as packet, is made practical by the computer (or microprocessor). In addition to spreading the spectrum by frequency hopping, you can computer control carrier phase shift to produce a "wobble" which is a variation of FM. Like it or not, we need to develop or invent new and better ways of utilizing our portion of the spectrum. AMRAD moved into the SS area about a decade ago in conducting on the air HF spread spectrum tests. Today, SS is limited to frequencies above 420 Mhz. at 100 watts or less, mainly because of a concern that its properties will be exploited by individuals who will abuse the super efficiency of the technique in providing secure, not easily detected communications.

DX DX DX

By John Kanode, N4MM

HOW BIG SHOULD DXCC COUNTRY BE?

The DXAC has received a petition requesting that Scarborough Reef be considered for addition to the DXCC Country List. Scarborough Reef is nothing but a few rocks sticking out of the ocean. The largest is about two meters across. The other rocks are scattered over a 10 mile area. Setting up and operating a station on such a small area would be almost impossible. The last time this was done was when the Japanese set up on Okino Tori-shima. They had to erect platforms over the rocks in order to have a place to operate from. As most will recall, Okino Tori-shima was not added to the DXCC list my normal means, it was add as a political plum in order to gain support for WARC-79. It was a bad idea and it backfired and caused much ill will in many quarters. After some time passed, Okino tori-shima was deleted from the DXCC Country list.

The DXAC now has on its agenda the question of "How large should an area be in order for it to be considered for DXCC status? To me, these micro islands and reefs should not be considered for DXCC status, but the present DXCC rules allow for such. I hope that in the future the DXCC Awards Program will be restructured and these reefs and other questionable areas will disappear. If some hams can raise \$200,000 to go to some frozen island, why not use this money to get an Amateur Radio Service started in some real country, ie, the Albania experience. The penguins on some frozen island will not be at the next WRC, however some small country that has an Amateur Radio Service, which came about due to others helping, will be at the next WRC. Let's face it, we need their support at the future WRC's.

UPCOMMING DX CONTESTS

RAC Canada Day Contest July 1, 1994
Venezuela SSB DX Contest July 2-3, 1994
IARU HF World Championship July 9-10, 1994
Colombian Independ. Day Contest July 16-17, 1994
Venezuela CW DX Contest July 23-24, 1994
SEANET CW Contest July 23-24, 1994

APPROVED OPERATIONS

Call: Operation Beginning:

3D2KR 25 Feb. 1994
3D2LA 25 Feb. 1994
3Y0PI 29 Feb. 1994
5R8KH 21 Oct. 1993
9N1BD 25 Aug. 1993
9U5DX 8 Oct. 1993
A25/WD8NMV 15 Mar. 1993
ET3RA 22 Nov. 1993
S21ZW 26 Oct. 1993

Continued on next page

TU4EI 22 Sept. 1993
VP2EDK 23 Sept. 1993
XF4CI 15 Dec. 1993
XU9M 3 Mar. 1993
XU9R 3 Mar. 1993
ZF2CR 1 Mar. 1994
ZF2QA 21 Jan. 1991

TIDBITS

The DXCC Award Application Form has changed substantially. The changes have been made to provide information necessary for proper processing of the application. Only use forms with MSD-

505(194) printed at the bottom. Beginning August 1, 1994, only MSD-505(104) or later will be accepted. If you have old forms dated before 1-94, please discard as they are no longer valid.

When having QSL's checked for DXCC at ARRL Conventions or in person at ARRL HQ, there is a \$2.00 handling fee and the application is limited to 110 QSL Cards.

160 Meter DXCC Cards can not be checked by DXCC Field Representatives or at Conventions.

Joannie Branson, KA6V became a Silent Key at the age of 67. She was a tireless supporter of DXpeditions and was involved in mass QSLing efforts for VP8SSI and 3Y0PI.

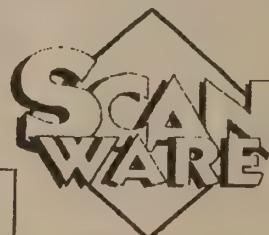
More info has been received at ARRL HQ in regards to the recent P5RS7 operation. It is written in Korean and must be translated. Please DO NOT send P5RS7 QSL's to ARRL HQ for DXCC credit. THEY ARE NOT ACCEPTABLE AT THIS TIME. It is not known, at this time, if this additional info will be of any use in determining if the operation is valid.

Geoff Watts, BRS3129 became a Silent Key on May 9, 1994. He was the founder-editor of the DX NEWS SHEET from 1962-82. He established the Islands On The Air Award Program in 1964. He was the only SWL to be inducted into the CQ DX Hall of Fame.

FCC Frequency Retrieval System © Version 2.0

The Ultimate Database Manager for your IBM / INTEL compatible computer. You can search, sort, extract, and generate frequency lists of many types. You can output to disk or printer, and manage your favorite frequency files as never before. The FCC FRS comes to you complete with the FCC Database for the state of your choice. Covering frequencies from 10 kHz to 2036 MHz, your state database will include Broadcast Services, Common Carriers, Experimental Licenses, Land Mobile (470-512 MHz), Industrial Services, Public Safety, Land Transportation, Special Mobile Radio (SMR) & 900 MHz, Aviation, Marine, and Business Bands.

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TRAFFIC FUN

By Geri Sweeney, N4GHI

CERTIFICATES:

One of the easiest ways to get an ARRL certificate is to just check in to a net a few times a month (on the average of once a week) . one of the first radios a new amateur is apt to purchase is often for 2 meters. This allows communications from your vehicle while keeping within a reasonable price range. It also permits you to participate in a 2 meter net. All those folks who have entered amateur radio with a no code license can also participate.

The Northern Virginia Traffic Net meets on 147.30 each evening at 7:30. The repeater is on Bluemont and has excellent coverage throughout the metropolitan area. While the net is named for where the repeater is located, stations from Maryland and DC, and even West Virginia, do check in and move traffic. All are welcome.

Net certificates come in: Local, Section, Region, Area, and TCC. 2 meter nets are local nets. They currently seem to be the fastest growing nets around the country. It's easy and comfortable to join one and immediate feedback can be had on questions as to traffic procedures. Most net managers try to have a different person call the net each day. This gives more people a chance to train as NCS (Net Control Station). While the procedure for calling a net is essentially the same, each NCS brings to it his own unique style. Each local net needs liaison stations to take traffic on to the next net (a Section level net), or redirect the traffic toward packet. Once you feel comfortable checking in on the NVTN, you may feel the urge to send messages, offer assistance in helping as NCS, and/or becoming a liaison station. The net manager for the NVTN is Bill Kreher, N4DCC. He's about the nicest guy in town and ready to help you in any way possible. You have but to ask.

To be an ARRL recognized local net, it must meet daily. Many of the clubs in our area have nets which only meet once a week. Each club may consider having one representative collect traffic at that weekly meeting and take it on to the NVTN. The Local Net Certificate is signed by both the Section Traffic Manager and the Section Emergency Coordinator. Local nets are considered the backbone of any emergency. All ARES and/or RACES amateurs should be acquainted with local net procedures. If an emergency occurred, would you know how to call up a net and get tactical, as well as routine traffic moving?

Section Leaders:

Each section (ARRL members) vote for their Section Managers every two years. Section Managers then select a Section Traffic Manager and a Section Emergency Coordinator. For information on joining ARRL, or participating in Section activities:

VIRGINIA

SM N4KSO, Ted Dingler
STM N4GHI, Geri Sweeney
SEC N4SCK, Bob Lewis

MARYLAND/DC

WB3V, Bill Howard
N3EGF, Bruce Fleming
WA1QAA, Mike Carr

SAMPLE LOCAL NET CERTIFICATE



THE AMERICAN RADIO RELAY LEAGUE, INC.
HEADQUARTERS, NEWINGTON, CONNECTICUT

Local Net Certificate

This certifies that _____
is duly recognized for participation in the _____ Net
and has therefore qualified for this Local Net Certificate as issued by the NM and/or EC.

Date

Net Manager or Emergency Coordinator

The Section Emergency Coordinator's signature below indicates that this net is part of the ARRL AMATEUR RADIO EMERGENCY SERVICE. The signature of the Section Traffic Manager below indicates that this net is affiliated with the ARRL NATIONAL TRAFFIC SYSTEM.

Section Emergency Coordinator

Section Traffic Manager

FOUNDATION FOR AMATEUR RADIO
VOLUNTEER EXAMINER COOPERATIVE

JOHN FORREST WZ4A
6111 BURNETT ST.
ALEXANDRIA, VA, 22310
(703)971-3905

NOTICES:

* EFFECTIVE JULY 1, 1994, THE GENERAL CLASS WRITTEN EXAM QUESTION POOL (ELEMENT 3B) WILL CHANGE. EXAMS ADMINISTERED AFTER THAT DATE MUST USE THE NEW QUESTION POOL. BE SURE TO USE STUDY MATERIALS APPROPRIATE FOR THE QUESTION POOL IN USE.

SCHEDULE OF EXAMINATIONS

1994

JUNE 4, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (W5YI VEC) WALK-IN
CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)
(301)773-2898 (EVENING)

VIRGINIA BEACH, VA - VA BEACH ARC (ARRL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JUDY ROGERS KD4JMA (804)468-9166

JULY 3, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (ARRL VEC) WALK-IN
CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)
(301)773-2898 (EVENING)

JULY 9, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN
CONTACT: FRANK MACKEY N4GUS (703)455-1510

CHESAPEAKE, VA - CHESAPEAKE DX ASSN (ARRL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: BILL VEREBELY KC4YX (804)424-4764

JULY 16, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

JULY 23, 1994 (SATURDAY)

CULPEPER, VA (ARRL VEC) PRE-REGISTRATION PREFERRED
CONTACT: BILL BROWN AC4KP (703)547-3089
GARY W0QDP (703)854-6187

JULY 27, 1994 (WEDNESDAY)

GLEN BURNIE, MD - MARYLAND MOBILEERS ARC (LAUREL VEC)
PRE-REGISTRATION REQUESTED - LIMITED WALK-INS
CONTACT: JERRY GAVIN NU3D (410)761-1423

JULY 30, 1994 (SATURDAY)

GLOUCESTER, VA - GLOUCESTER RADIO AMATEUR COLLEGE OF
EXAMINERS (W5YI VEC) PRE-REGISTRATION DESIRABLE
CONTACT: FRAN STERLING KD4UEY (804)693-2117

JULY 31, 1994 (SUNDAY)

HAGERSTOWN, MD - ANTIETAM RADIO ASSN ARC (ARRL VEC)
PRE-REGISTRATION REQUESTED
CONTACT: PAGE PYNE WA3EOP (301)714-0688 (DAY)
BOB LONG KD3JK (301)824-5132 (EVENING)

AUGUST 6, 1994 (SATURDAY)

HERNDON, VA - HERNDON REPEATER GROUP (ARRL VEC) WALK-IN
CONTACT: MIKE WEBER WB8RDN (703)450-2304 BETWEEN 7-9 PM

AUGUST 7, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (W5YI VEC) WALK-IN
CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)
(301)773-2898 (EVENING)

AUGUST 13, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN

CONTACT: FRANK MACKEY N4GUS (703)455-1510

CUMBERLAND, MD - MOUNTAIN ARC (MOUNT. ARC VEC) WALK-IN

CONTACT: LEO PATTERSON KQ8E (304)289-3576

GAY REMBOLD W3DFW (301)724-0674

HARRISONBURG, VA - MASSANUTTEN ARA (ARRL VEC) WALK-IN

CONTACT: MARSHALL COOPER N4ZKH (703)856-8012 (6-9PM)

AUGUST 20, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)

PRE-REGISTRATION DESIRABLE

CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

AUGUST 30, 1994 (TUESDAY)

ANNAPOLIS, MD - MARYLAND MOBILEERS ARC (LAUREL VEC)

PRE-REGISTRATION REQUESTED - LIMITED WALK-INS

CONTACT: LOIS TURNER KA3VVQ (410)647-4178

SEPTEMBER 4, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (ARRL VEC) WALK-IN

CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)

(301)773-2898 (EVENING)

ELKINS, WVA (MOUNT. ARC VEC) WALK-IN

CONTACT: (304)637-0506

SEPTEMBER 10, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)

WALK-IN

CONTACT: NANCY ALLEY NT3Z (410)761-7115

BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN

CONTACT: FRANK MACKEY N4GUS (703)455-1510

CULPEPER, VA (ARRL VEC) PRE-REGISTRATION PREFERRED

CONTACT: BILL BROWN AC4KP (703)547-3089

GARY W0QDP (703)854-6187

SEPTEMBER 14, 1994 (WEDNESDAY)

GLEN BURNIE, MD - MARYLAND MOBILEERS ARC (LAUREL VEC)

PRE-REGISTRATION REQUESTED - LIMITED WALK-INS

CONTACT: JERRY GAVIN NU3D (410)761-1423

SEPTEMBER 17, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

SEPTEMBER 18, 1994 (SUNDAY)

VIRGINIA BEACH, VA - SOUTHERN PENINSULA AMATEUR RADIO KLUB
(VEC UNKNOWN) WALK-IN
CONTACT: ED BRUMMER W4RTZ (804)898-8031

SEPTEMBER 24, 1994 (SATURDAY)

GLOUCESTER, VA - GLOUCESTER RADIO AMATEUR COLLEGE OF
EXAMINERS (W5YI VEC) PRE-REGISTRATION DESIRABLE
CONTACT: FRAN STERLING KD4UEY (804)693-2117

OCTOBER 1, 1994 (SATURDAY)

WILLIAMSBURG, VA - WILLIAMSBURG ARC (ARRL VEC)
WALK-IN
CONTACT: ANDREW SWANSON WJ4X (804)253-2811

OCTOBER 2, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (W5YI VEC) WALK-IN
CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)
(301)773-2898 (EVENING)

OCTOBER 8, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN
CONTACT: FRANK MACKEY N4GUS (703)455-1510

CUMBERLAND, MD - MOUNTAIN ARC (MOUNT. ARC VEC) WALK-IN
CONTACT: LEO PATTERSON KQ8E (304)289-3576
GAY REMBOLD W3DFW (301)724-0674

HARRISONBURG, VA - MASSANUTTEN ARA (ARRL VEC) WALK-IN
CONTACT: MARSHALL COOPER N4ZKH (703)856-8012 (6-9PM)

OCTOBER 15, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE

CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

OCTOBER 25, 1994 (TUESDAY)

ANNAPOLES, MD - MARYLAND MOBILEERS ARC (LAUREL VEC)
PRE-REGISTRATION REQUESTED - LIMITED WALK-INS
CONTACT: LOIS TURNER KA3VVQ (410)647-4178

OCTOBER 23, 1994 (SUNDAY)

HAGERSTOWN, MD - ANTIETAM RADIO ASSN ARC (ARRL VEC)
PRE-REGISTRATION REQUESTED
CONTACT: PAGE PYNE WA3EOP (301)714-0688 (DAY)
BOB LONG KD3JK (301)824-5132 (EVENING)

EXAM FEES:

- * CHECK FOR APPROPRIATE EXAM FEE. FEES AND MODES OF PAYMENT FOR INDIVIDUAL VECs AND EXAM TEAMS MAY VARY.
 - * ARRL VEC EXAMS COST \$5.75
 - * LAUREL VEC EXAMS ARE FREE
 - * MOUNTAIN VEC EXAMS ARE FREE
 - * W5YI VEC EXAMS COST \$5.75

BRING TO EXAM:

- * PICTURE IDENTIFICATION
- * COMPLETED FCC FORM 610 (MOST VE TEAMS WILL SUPPLY AT EXAM)
- * ORIGINAL AND A COPY OF CURRENT FCC AMATEUR RADIO LICENSE
- * ORIGINALS AND COPIES OF ALL ACTIVE CERTIFICATES OF SUCCESSFUL COMPLETION OF PRIOR EXAMS
- * EXAM FEE (CHECK OR CASH DEPENDING ON VE TEAM)

"GRANDFATHER" CREDIT FOR ELEMENT 3B (GENERAL WRITTEN):

- * IF YOU PRESENTLY HOLD A TECHNICIAN CLASS LICENSE WHICH WAS FIRST ISSUED PRIOR TO MARCH 21, 1987, YOU MAY BE GRANDFATHERED FOR ELEMENT 3B (GENERAL CLASS WRITTEN EXAM) BY PRESENTING THE ORIGINAL AND A COPY OF THE LICENSE DATED PRIOR TO MARCH 21, 1987 TO THE VE TEAM. IT IS YOUR RESPONSIBILITY TO PROVE THAT YOU ARE ENTITLED TO GRANDFATHERING. DO NOT LOSE YOUR ORIGINAL LICENSE!

RULES FOR SUBMISSIONS TO THE FAR VOLUNTEER EXAMINER COOPERATIVE:

1. ALL SUBMISSIONS MUST BE IN WRITING
2. DATE AND DAY OF WEEK MUST BE SPECIFIED FOR EACH EXAM DATE
3. POINT OF CONTACT AND PHONE NUMBER MUST BE SPECIFIED
4. SPONSOR AND LOCATION MUST BE SPECIFIED
5. VEC MUST BE SPECIFIED
6. EXAM DATES UP TO 12 MONTHS IN ADVANCE WILL BE ACCEPTED

Training Classes

Alexandria Radio Club	Rich Adamy - KA4GFY	(703)644-3920
Anne Arundel Radio Club	Tony Young - WA3YLO	(301)262-1917
Arlington Amateur Radio Club	Fred Bardsley - WD4DHW	(703)533-0372
Antietam Radio Association	Robert Long - KD3JK	(301)824-5132
Baltimore Radio Amateur TV Society	Joe Chidester - W3SHZ	(410)602-0353
Fauquier Amateur Radio Club	Neil Spokes - AB4YK	(703)364-3861
Frederick Amateur Radio Club	Steve Bauman - W3FOA	(301)662-4552
Herndon Repeater Group	Michael Weber - WB8RDN	(703)450-2304
Laurel Amateur Radio Club	Pub Weaver - W3DQI	(301)498-6293
Madras	Larry Ziecheck - N3GKS	(301)984-6112
Maryland Mobileers ARC	John Baugus - N3JME	(301)551-3161
Montgomery Amateur Radio Club	Jane Rosenthal - AA3CQ	(301)762-6262
Mount Vernon Amateur Radio Club	John Forrest - WZ4A	(703)971-3905
NASA/Goddard Amateur Radio Club	Vikki Gigante - KA3PVS	(301)249-2609
Ole Virginia Hams ARC	John Fritsch - N4YOB	(703)791-5995
Pentagon Amateur Radio Club	David Boyd - K9MX	(703)659-6241
Rock Creek Amateur Radio Assn.	Leo Boberschmidt - KA3TGY	(301)949-3954
St. Mary's County ARA	Guy Black - W4PSJ	(301)862-2214
Shenandoah Valley ARC	Vic Curtis - WA3YUV	(703)722-4952
Southern Maryland ARC	Dwayne Kincaid - WD8OYG	(301)888-1388
Southern Patuxent ARC	Will Schmitt - KD4CNX	(301)586-2177
Springfield Estates ARC	Jerry Mullinix - AC4HK	(703)768-5709
Stafford Adult Education	Mark Johnson - WS3N	(703)659-3905
Sterling Park Amateur Radio Club	John Creel - WB3GXW	(703)430-3804
Tri-County Amateur Radio Club	Paul Wilkins - AB4CY	(301)572-5124
Vienna Wireless Society	Cliff Deel - KO4FM	(703)560-2779
Woodbridge Wireless, Inc		(703)491-0841

NOVICE, TECHNICIAN ENTRY-LEVEL AMATEUR RADIO COURSE

The Mount Vernon Amateur Radio Club will present an entry level course leading to a Novice or Technician amateur radio license. The course will be held Monday evenings from 7:30 to 9:30 PM in Alexandria, Virginia beginning in early September and will run for about 15 weeks. Morse code instruction will be included in the course. There is no charge for the course; however, students will be expected to provide their own study materials which will cost about \$30. Contact John Forrest, WZ4A at (703)971-3905 for further information including location and exact starting date.

FOUNDATION MEETING

The Foundation for Amateur Radio, Inc. meets at 8: p.m. on the second Wednesday of each month.

Visitors are always welcome

The next meeting will be July 13 at the Lee Center, Alexandria, Virginia

Take Capitol Beltway to Exit 1 (US 1 North)
 North to the second traffic light, Left on Gibbon Street to Fayette
 Left on Fayette to dead end at Lee Center parking lot
 Talk-in on 146.55



4th Annual

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SUNDAY AUGUST 7, 1994
Upper Marlboro, Maryland



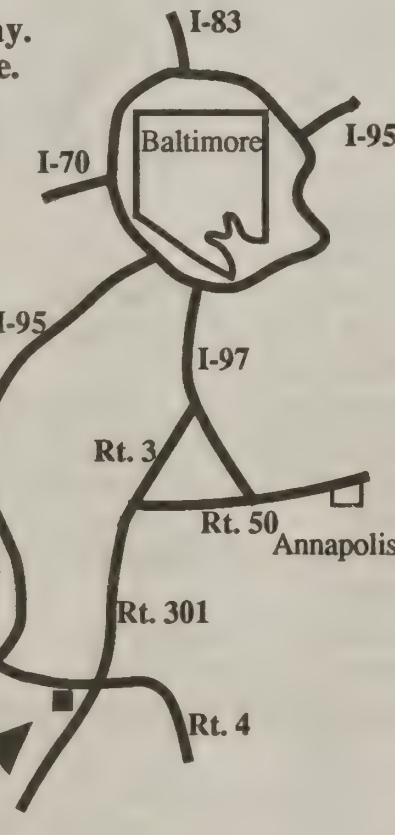
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Sunday Tailgate Setup 6 a.m.
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The Shenandoah Valley Amateur Radio Club

Presents The

44th Annual Hamfest & Computer Show

(Electronics Flea Market Open To The General Public)

SUNDAY, AUGUST 7th, 1994

**AT THE CLARKE COUNTY RURITAN FAIRGROUNDS
IN BERRYVILLE, VIRGINIA**



ARRL APPROVED
HAMFEST

- GATE OPENS AT 6:00 AM
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FIRST COME, FIRST SERVED
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- COUNTY PARK WITH POOL, PICNIC AREA,
AND PLAYGROUND OPPOSITE HAMFEST SITE

Remember!

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Sunday in August.

by Rick Choy
N3HXT
Hamfest Chairman

*VE Exams 8 AM
At Cooley School
Across from Hamfest
All classes of licenses
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Limited walk-ins

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Presents

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Sunday August 14, 1994

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DONATIONS \$5.00

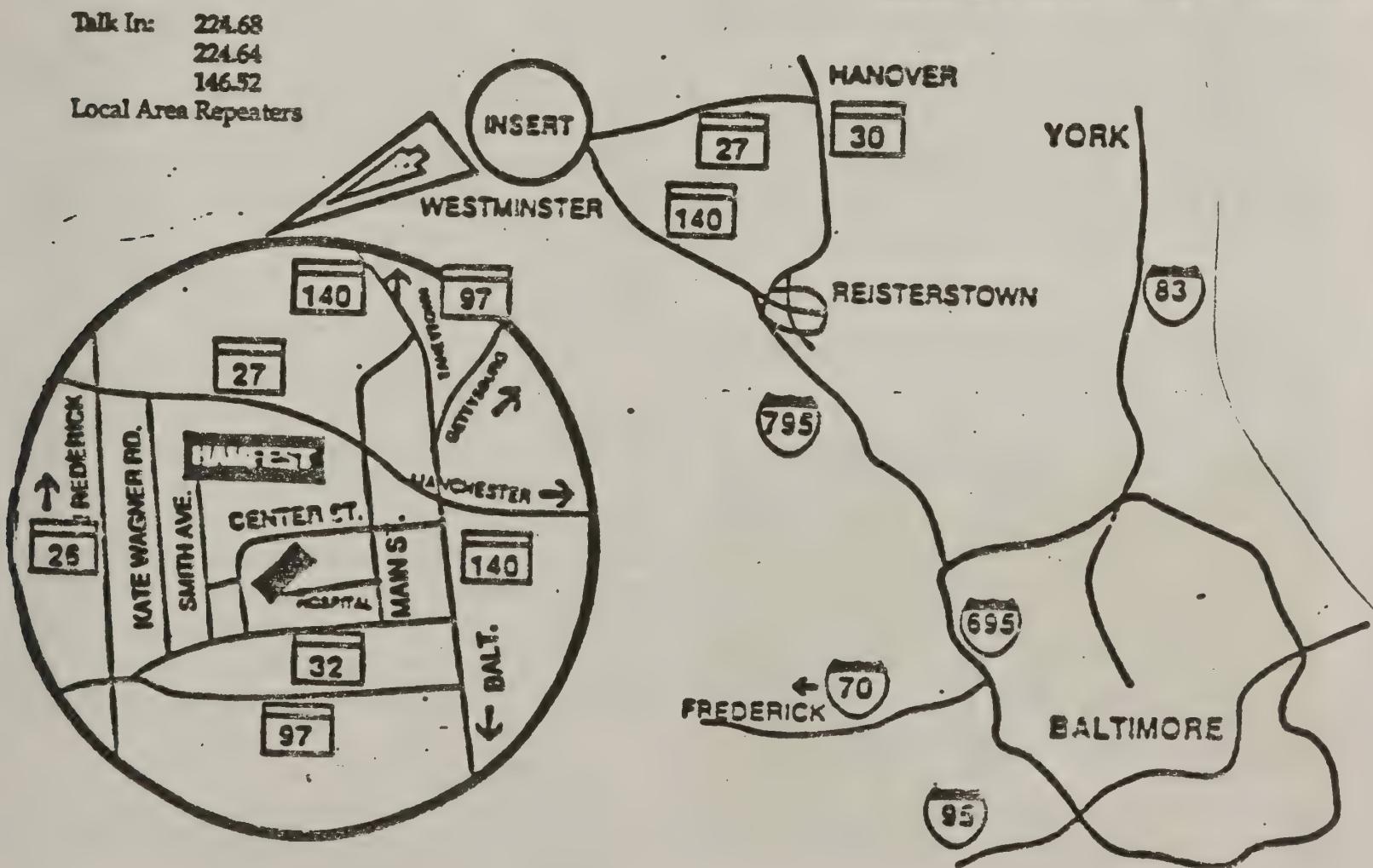
8000 SQ. FEET OF INSIDE TABLE SPACE

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(410)859-1475

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General Admission at 8:00 AM

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Metrovision Amateur TV Club Fast Scan-Color-ATV

- Meetings: Quarterly: Call for next time and place
- Repeater: WA9GVK/4 (video and audio) 425-431 MHz in; 144.970 simplex out.
- On-The-Air: Sundays (ATV Net) at 8:00 P.M.
- Mailing: Metrovision, Inc., P.O. Box 8231, Falls Church, VA. 22041
- Information: Jim - KA4CKI (703) 494-6342 or Tom - KO4OX (703) 752-2100

Now that Summertime is upon us, I hope that all our members and friends have a most enjoyable vacation. Please keep safety in mind at all times, especially when you are on the road.

The Metrovision Twentieth Anniversary Dinner was held at P. J. Skidoo's Restaurant in Fairfax, VA. on Sunday, May 15. This event was very successful and we had twenty-two members and friends in attendance. As many of you know, Metrovision, through the efforts of WA9GVK, Bruce Brown, was the first ATV repeater started in the U.S.. Two awards were presented at the dinner: One award was presented to N3GHY, Sam Sullivan in recognition of his serving as our club president for over two years, and the other award was presented to WB3EPX, Dick Logan. We were especially happy to have some old members and friends such as Diane and Doug Mayo, Rebecca and Franz Williams and their son Franz, and Laura and Warren Bain who came all the way from Colorado. We all had a very enjoyable evening and a fine dinner.

Shown below is a photo that was taken at the Anniversary Dinner.



Quarter Century Wireless Association Shenandoah Valley Chapter #137

- Meetings: Third Wednesdays of Alternative Month (Jan., Mar., May., Jul., Sept., Nov.) at 1 P.M.
- Place: Various Restaurants (July is Carper Valley Golf Club, Winchester, VA.)
- Information: Nat De Gutz, W2CXB, President; (301) 790-0167
- Mail: Guy Black, W4PSJ, Sec/Treas.; 315 Woodside Ln., Winchester, VA. 22603

Since the last report, the Chapter has canceled one meeting due to winter road conditions in January (remember?), and held two others. At the dinner meeting March 16th, Perry, W3HQX reported the results of a survey of preferences for time and place of Chapter meetings, and it was voted that future meetings would be a 1 PM on the third Wednesdays of alternative months, sampling a number of meeting places. The next meeting will be at 1 PM on Wednesday, July 20th at the Carper Valley Golf Club, Route 50 just east of Winchester, VA. Perry also gave a talk on "The Sounds of Natural Radio: Whistlers, Tweaks and Other Natural Phenomenon" and played tapes of these phenomenon, that can be heard on VLF.

On May 18th the Chapter meet in the banquet room of the Silver Leaf Restaurant, Winchester, for a buffet lunch and to hear Al Brown, WA3FYZ, President of the VOA Radio Club, and a local (Hagerstown) boy speak of experiences globetrotting with the Voice of America. in addition, the Chapter welcomed two new members: Ethel M. Smith K4LMB and Peter N. Frentz, K3QOY

On May 4th, the Chapter lost a member, Edwin Hagelberg, W3IUT, to a heart condition at the age of 80. Ed was first licensed in 1935 as W2INT, and had been an electronics technician at Brookhaven National Laboratories, Upton, N.Y. for 30 years before moving to Hagerstown. Ed was also a member of the Antietam Amateur Radio Club.

The club had a welcoming and recruitment table for QCWA at the Antietam Hamfest on May 22nd, and will be at the Berryville hamfest on August 7th.

Guy Black, W4PSJ
Secretary/Treasurer Shenandoah Chapter #137
315 Woodside Lane Winchester, VA 22603
Phone: 703 722 4952

THE SHENANDOAH VALLEY AMATEUR RADIO CLUB W4RKC

- Meetings: First & Third Friday of each Month 7:30 PM
- Place: The Collins building 2129 Grace St. Winchester
- Repeater: 146.22/82 W4RKC
- Net: SVEN 7:15 PM Daily 146.22/82
- Information: George Ritter W4UGX 703-662-0157
- Club Pres. : Irvin Barb KD4BHV
- Address: P.O. Box 139, Winchester, Va. 22604

This spring has been a busy time for the SVARC. The Spring Fever Biathlon went very well. We appreciated the solid help from Stan KD4HRJ, Danielle KC4SUV, Bill KF4HP, John KC4YMR, Jim KE4JJR, Jane KD4IET, Irv KD4BHV, Walt WA4HVU and Conway KD4HRK. The Apple Blossom 10K race through the streets of Winchester went off without incident, also helping with that event was; Jerry W6IHG, Olin WA40YD, Charlie K4LWG and Mark KD4HRI.

By the time this gets to press the Old Dominion 100 Mile endurance run in Fort Valley will once again be history. There will be entrants from the four corners of our nation and from Canada to compete. The race begins at 4 AM on Saturday morning and for the front runners it will be finished at 5 AM the following morning.

We especially want to thank Sandy WB5MMB for his generous help in providing his portable repeater for these Fort Valley Events.

We are all very saddened to report the passing of Bettie Johnson, N3PNW on June 1st, 1994. The Bettie and Walt Johnson team made immeasurable contributions to this Club over the years. Bettie, while not a licensed ham for most of her membership term spanning more than 10 years did obtain her license about one year ago. Bettie always handled the Dingo for our Hamfest and the arrangements for all of our social functions of the Club. Bettie will leave a void that will not be easily filled in or organization.

We are very happy to report that after considerable efforts by dedicated Club members over a long

period of time, the SVARC has been asked by the Winchester Medical Center to proceed with development of technical criteria and procedural concepts to be employed by the Amateur Radio community in support of the Winchester Hospital in times of emergency. At a meeting with Hospital officials and members of the SVARC on May 31st, 1994, Fred Wetzel, W4KRT, Ed Richt K3THD and Rick Choy N3HXT, were given the go ahead to develop the systems and procedures that will be used to facilitate this support.

From the training department, Guy Black, W4PSJ, kicked off a beginners licensing course on May 26th to include six sessions with a completion date of June 28th, 1994. The Class started off with 13 students. Guy hopes to have the exams at the final session or within a couple of days following. If all goes well, by publication date we should have about a dozen new Hams.

Godfrey, N8GM, is completing plans for Field Day which will be held at Guy Black's mountain top hideaway at Spring Gap mountain near Slanesville, WV. The site is one beautiful location. The real beauty is that lots of antennas are in place, and the cottage there has all the creature comforts. Be sure to take your camera, the views are incredible.

Thanks to those individual members who contributed food items to the Lord Fairfax Food Bank during the drive in May, 94. Our Club succeeded in collecting and delivering nearly 200 lbs. of food for this worthy cause. A special thanks to Irv and Jane for taking charge of this project.

73's Walt, WA4HVU

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Anne Arundel Radio Club

- **MEETINGS:** 8 PM 1st and 3rd Thursdays, Davidsonville Family Recreation Center, Queen Anne Bridge & Wayson Roads off MD Rt. 214 near Annapolis.
- **ON THE AIR:** 2030 Thursdays when there is no club meeting on 147.705/105. Tuesdays at 2030 local time on 28.410. The Chesapeake Weather & Traffic Net on 147.705/105 at 1100 and 1500 every weekend day and public holiday from April 1 to November 15. MSN (Maryland Slow Net) every evening at 1930 on 3.7170 Mhz.
- **ADDRESS:** P O. Box -08, Davidsonville, MD 21035
- **INFORMATION:** Margaret (Holly) Bevan, 301-923-0229

The guest speaker for the AARC May program meeting was William (Bill) Howard/WB3V, ARRL Maryland-DC Section Manager for the Atlantic Division. He explained Section organization and how club members can be of service to ARRL, vanity call signs, malicious interference on the repeater and various other items of special interest to amateurs. He was most interesting and informative.

Ten AARC members, coordinated by Bob/N3MNT, furnished communications on May 15th in Quiet Waters Park for the 3rd annual "Walk for the Animals", a fundraiser for the Anne Arundel SPCA. The volunteers manned seven check points and a bike mobile. They reported that a great time was had by all.

Four club members spent a total of 17 hours of public service on May 22nd at "The Spring Fling", a street fair in Old Bowie sponsored by the Historical Old Bowie Merchants Association. The event was kicked off by the dedication of an almost-finished railroad museum near the new Amtrack Railroad Bridge.

Plans are underway, of course, for Field Day. Coordinators Bob Baltz/N3MNT and Dick McKelvie/KE3HQ are planning HF stations for 20, 40, and 80 meters, 6-meter and 2-meter simplex stations, packet and satellite stations and a 10-meter Novice Station. All stations will be set up on the grounds of the Davidsonville Family Recreation Center, as usual, and will operate on low power, using batteries recharged by solar panels.

At the AARC Clubhouse on May 14th, Coordinator Oscar Ramsey/NV3G, Charlie Tiemeyer/W3RMD and Harold (Ham) Molz/N3FDH gave 37 tests to 20 persons. Eleven tests were passed with 7 upgrades. Gordon Davids/WJ3K and Jeff Smith/N3OKY graded. Robert Kammer/N3POX acted as runner. Holly Bevan/N3BMB and Bettye Tiemeyer/K3VRZ registered. The next testing session at the clubhouse will be on June 11th.

Congratulations to Bill Kitchin/N3KHI who is now Tech+ and to Herb Elkin/KA3FDO who advanced to General.

73, Holly/N3BMB

Amateur Radio Research and Development Corp. (AMRAD)

- **Meetings:** Second Thursday of each month, at the Fairfax County Library, McLean, VA (Talk-in AMRAD repeater)
- **Repeater:** WD4IWG (147.81 in/147.21 out); Jeff Brennan (WB4WLW), manager; WD4IWG is an open repeater for FM voice and digital communication, especially for experimental modes. Autopatch available to members.
- **Data address:** Internet address is rmays@ amrad. win.net
- **AMRAD Information Center:** (703) 849-1161.
- **Information:** Andre Kesteloot N4ICK @ (703) 356-5519 or Terry Fox WB4JFI @ (703) 849-1189.

A number of AMRAD members attended the Dayton Hamvention, gathering at the home of Joyce and Skip (N2FOE) Pratt for a BBQ on Friday evening.

We are gearing up for microwave activity for the summer months, with the end goal being the ARRL 10-GHz Microwave Contest in August and September. Work on narrow-band (SSB) 10-GHz equipment is still planned, but has been on hold for several months because of time restrictions. Anyone interested in 10-Ghz or any other microwave effort is invited to contact AMRAD.

The speaker for the June 1994 meeting was Bob Smith (N3FTU), offering "Survey of Options for the Wireless Market". The speaker for the July meeting

Continued on next page

Arlington Amateur Radio Club

- Meetings: Third Tuesday of each month at 7:30 PM
- Place: Red Cross building, 4333 Arlington Blvd., Arlington, VA
- Net: Tuesdays (except third Tuesday), 7:30 PM, 145.47(-)
- Information: Mike Callaham, NW3V 241-5618 or @WA3TAI
- Mail: 4333 Arlington Blvd., Arlington, VA 22203

Now that Field Day '94 is behind us, the Arlington ARC is looking toward the future and for ways to attract new members. There seems to be a lot of interest in supporting newcomers to amateur radio as they work through the maze of getting their first ticket and setting up a shack. We certainly have had plenty of unlicensed but interested visitors over the last year.

Towards that end, we got a good start at the May meeting, appropriating funds to purchase the ARRL No-Code Technician License instructional video. New member Walter Raif will get first crack at it, but with any luck he's passed his exam by now and is waiting for the FCC to send him his call. Rather than trying to accommodate everyone's schedule and form a class, we can lend the video "class" to club members and let them work through it at their own pace. We've also got several members who are more than willing to help the no-coders get their HF privileges. (Thanks again to Joe, AB4RA, for helping me.)

As we're looking into other things we can do to help new hams get on the air, we will continue to emphasize public service, particularly ways we can help out the Arlington Red Cross chapter. We had a very nice turnout for the Red Cross-sponsored Crystal City 10K Run. Tom, N4BYF, did another fine job organizing and running the net supporting the race officials. He sends a big TU to Mary, KA1KWP; Frances, KD4AXW; Tom, W4LMW; Mike, NW3V; Kada, KD4CYF; Mike, N3PDK; George, KR4MU; and Marc, KD4PDC for their help. We all would also like to recognize and thank Bob Milligan, KI4MB, for his excellent work supporting the 47 machine and allowing us to run our nets on it.

So if Field Day got you itching to get into, or

back into, ham radio and you're looking for an elmer or someone to elmer, the Arlington Amateur Radio Club may be the place for you. You're more than welcome to come check us out.

73, Marc, KD4PDC

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AMRAD - *Continued from page 32*

is tentatively Bruno Pattan who will be speaking on Space Debris.

If you have an interest in technical matters, come to one of our meetings, visit us at WINTERFEST (tm), or join us for a Saturday lunch. We lunch at Taco Rio Grande in Vienna on Saturdays at 1230 hrs; our monthly meetings (technical talks) are the 2nd Thursday monthly. All are welcome! Talk-in on the AMRAD repeater. (de Dave, N4JGQ)

Dave Rogers, N4JGQ
P.O. Box 1835
Vienna, VA 22183-1835

Rock Creek Amateur Radio Association

- Meetings: 3rd Friday of each month at 7:30 PM. VITRO Corp. Bldg #4, 13900 Connecticut Ave., Silver Spring, MD
- Repeater: W3RCN, 145.25/144.65 in Rockville, MD.
- Weekly Net: Monday at 8 PM on the repeater
- Alumni Net: Monday at 10:45 AM on 7.230 MHz (+/- QRM)
- Luncheon: Each Wednesday at 11:00 AM at the Anchor Inn in Wheaton, MD
- Address: P.O. Box 1913, Silver Spring, MD 20915
- Information: Leo Boberschmidt - KA3TGY (301) 946-3738 or KA3TGY@ N3BBF.MD. USA.NA

KENSINGTON CENTENNIAL: Although there was terrible weather (cold and rainy) and awful propagation conditions, the RCARA ham radio demonstration at the Kensington Centennial on May 7th was a success. First of all, thanks to the following for their work on that day: Bob, N3NNQ; Mike, KA3GSV; Betty, KA3KIV; Mike, NQ3V; and Leo, KA3TGY. Our thanks also to the ARRL and to AMSAT for all the ham radio promotional material. (NOTE: if your club is having any type of ham radio event, be SURE to contact ARRL for promotional material). Despite the cold and rain, we had a good number of people stop by the demonstration. Danny, K3TKS, stopped by with some of his QRP gear. Radio conditions were really not very good but we were still able to make a number of contacts, including one with former RCARA member Ed Hand, KB3OB, from his Florida retirement location. It took a lot of work but it was a fun event and the Town of Kensington was sufficiently impressed that they want RCARA to do a repeat for Labor Day when the Town will hold its traditional Labor Day Parade and will have a variety of other activities as part of their continuing centennial celebrations. Look for W3RCN on September 5th. Hopefully, propagation will be much better on Labor Day.

MEMBER ACTIVITIES: Carl, N3CFA, was on a trip to New England recently and had an opportunity to visit ARRL HQ in Newington. He and some other visitors at the time were given a tour of HQ and Carl was quite impressed with the station set up. If you are in the vicinity on any trips, be sure to allow yourself the time to visit ARRL HQ. After various weather delays, Bill, N3IYH (RCARA's resident pilot), was able to make one of his cross-country flights

recently. Everyone keep an ear open for N3IYH "aeronautical mobile."

73, Leo Boberschmidt,
KA3TGY@N3BBF.MD.USA.NA.

Capital City Amateur Radio Society

- Meetings: 3rd Saturday of the month at 12 Noon (except July & August). Woodridge Public Library, 18th & Rhode Island Ave. NE, Washington, DC
- Repeater: 145.11/144.51 MHz in NE Washington, DC. Auto-patch membership available.
- Weekly Nets: Computer Net: Monday at 8 PM on the repeater
- Packet Net: Tuesday at 8 PM on 145.53 MHz
- On-Air Meeting: Wednesday at 8 PM on the repeater
- RTTY Net: Thursday at 9 PM on the repeater (All amateurs are welcome to join in on any of these nets).
- Information: Chester R. Martin, W3EIL, (202) 529-9598 1719 Franklin St. NE, Washington, DC 20018
LeoJ. Boberschmidt, KA3TGY KA3TGY@ N3BBF.MD.USA.NA
- Training: Plater Campbell, N3DZQ, (202) 544-7810

NEW MEMBER: The following new CCARS member was voted in at the May meeting:

W3GZB - Stanley Marshall.

CONGRATULATIONS: Congrats to Lenny, N3RPQ, who passed his General written exam (Element 3B) at MRC on May 21st. He is now working on his code to finish his upgrade to General.

EVENT: CCARS will once again be providing communications support for the Annual Greater Washington Soap Box Derby. The event will take place on Saturday, July 16th, on the Constitution Avenue hill downtown next to the U.S. Capitol building. The various heats of the Derby will be going on for a good part of the day. It is always interesting to see the effort put into the racers by the young folks. Plan to be downtown that Saturday to watch the races.

ELECTRIC CARS: From February to April 1994, students of the Phelps Career Senior High School of the DC Public Schools, guided and supported by faculty members, converted a gasoline powered ve-

Continued on next page

FAUQUIER AMATEUR RADIO ASSOCIATION

- Meeting: Second Tuesday of the month. (No meetings July or August.) Shadow Lawn Recreation Center, Warrenton VA. Next meeting September 13.
- Breakfast: Last Saturday of the month at 7:30 am. Usually at Western Sizzlin, Warrenton, VA (call Neil at 364 3861 or Duffy at 347 0077 for summer arrangements)
- Net: Wednesday, 9:00pm local, 147.165 MHz Rptr
- Packet: FARA7 node 145.070 MHz FBBS9 Bulletin Board 145.090 MHz
- Newsletter: Toroid every month. Contact Duffy, KD6RNE, at 347 0077
- Repeater: NZ4N/R:- Tx 147.165 MHz, Rx 147.765 MHz
- Information: Neil, AB4YK, (703) 364 3861

We enjoyed an excellent meeting in April at the Vint Hill Farm Station's War of Signals Museum. A "Bravo" to Larry, K4LLQ, for setting it up and a "Brava" to the curator, Ms. Denny, who gave a knowledgeable and interesting description of the displays. Memorabilia from WW II and before, included maps of the area prior to its acquisition by the US Army and photos of equipment and some actual pieces of once operational gear.

At all times one is aware of the need for ongoing security concerning the mission and most of the achievements of VHFS. Much of the efforts of the base have concerned the use of technology that, to this day, is cloaked in secrecy. Only last year was it disclosed that, during WW II, VHFS operators intercepted a message from the Japanese ambassador in Germany that described the Axis fortifications on the French beach-heads that would soon be faced by the Allies during their Normandy landings.

Soon, questions of the museum's future are going to loom large. Clearly, this very special part of Fauquier's history will need to be housed thoughtfully to preserve this piece of our past for those who follow. Then we will be able to appreciate the efforts and achievements of those who successfully fought for our freedom through the developing days of electronic warfare at a time of the onslaught by implacable, ferocious and determined foes.

The May meeting was primarily given over to Field Day preparations under the capable guidance of Don, WY2V. Several details remain to be decided at the time of writing but if you are in Fauquier county on June 25/26 weekend check the repeater and come on by and enjoy a visit and even some operator time. At least give our W4NHJ Field Day station a call. We will be looking out for contacts on most bands from 3.5 to 440 MHz.

73 de Neil, AB4YK.

CCARS - *Continued from page 34*

hicle to electric power. CCARS member Oliver R. "Roy" Ellis, N3PXC, instructor in fluid power and robotics, was one of those faculty members. The converted vehicle was entered into the First Annual EV Grand Prix '94 in Richmond, VA, held at the Richmond International Raceway from 27-30 April, 1994. A total of 16 high schools competed from the Mid-Atlantic region. The vehicle that the Phelps students converted was a 1983 Volkswagen Rabbit. The conversion project included students and faculty from several departments of Phelps High School, including the Automotive Department; Body Shop; Engineering and Drafting Department; Electronics Department (including the Digital, Industrial, Robotics, and Hydraulics section); Math, Science, and English Departments; and the School Newspaper. The newly established Phelps Career Academy (officially The Integrated Design and Electronics Academy [IDEA]) had the lead responsibility for the project. The competition was sponsored by the U.S. Department of Energy with the major electric utility companies from the mid-Atlantic region as co-sponsors. PEPCO was the primary sponsor for Phelps High School. Although the Phelps students did not win any trophies, they did place well in the four events in which they competed. Their electriccar was on display for a while at the Department of Energy headquarters in Washington and will be maintained at Phelps for display and competition in future events. Congratulations to all the Phelps students involved. The key teachers involved included: Roy Ellis (N3PXC), Charles Leonard (KA3BBG), James Phifer, Edward Torrence, and Marshall Walker. Now we will have to see if Roy can get a Ham Radio Club going at Phelps.

73 de KA3TGY

GREEN MOUNTAIN REPEATER ASSOCIATION

- MEETINGS: Board of Directors, Last Monday of each month.
- REPEATERS: KD3VR-146.61(Cheverly)
K3GXF-146.88(Greenbelt)
- LUNCHEON: 1st Saturday of each month at the Fountain Cafe, Laurel Shopping Center Mall, U.S. Route 1(Balt. Ave.) and Cherry Lane. Starts at 11:30 am.
- MAILING: GMRA, P. O. Box 429, Riverdale, MD 20737
- INFORMATION: Boyd Nelson/KZ3Z (301)434-0934

GMRA held its monthly luncheon get-together at the Laurel Shopping Center Mall on Saturday, May 7, 1994. There was a good showing of 25 or more in the group. Yours truly was unable to attend as I was at the Kent Island Hamfest along with WA3NGF, Les who was tailgating some of his wares. Rain interfered with the outdoor tailgaters as early as 10:30 am.

GMRA is community conscious in the best traditions of Amateur Radio. It is involved in CDEP, Red Cross, Wash Jaycees, FAR and T-Marc. With this involvement we have certain obligations. For example, the Association supports the efforts of P>G> County CDEP in the event of an emergency as determined by the CDEP office and communicated via the President or Vice President of GMRA. This support is coupled with participation of GMRA members on a voluntary basis.

The Red Cross is also supported by GMRA repeaters during declared emergencies. Volunteers for Red Cross emergencies are normally solicited by the Prince George's Wireless Association which operates from its station, K3CEZ, located at the Red Cross Building in Hyattsville. Many PGWA members are also GMRA members as well.

GMRA members are expected to honor any such emergencies by either ceasing to use the repeaters, or participating in the emergency to the extent requested by the net control station. CDEP emergencies have the highest priority. Autopatches on 146.01/146.61 may be permitted by the net control station as long as they do not interfere with emergency action.

Now, in fairness to all concerned, after considering the above criteria, a club or group that wishes to use Repeaters for public service events, simulated test operations or any other activities for a required period of time should submit such request in writing. Requests should be made at least two weeks in advance of the operations and may be mailed to: Joe Nunemaker/KD3VR, 9303 Calanda, Seabrook, MD 20706.

GMRA is currently taking orders for Baseball Style Caps with GMRA and your individual call sign sewn on. These are of good quality material including the embroidered lettering. Thanks to H D/N3LFL who has researched all of this. To place your order please contact Joe/KD3VR at the above address or Call (301)577-3749 in the evenings.

Please be sure to join us at our next luncheon!

73's, Ken Easton/N3HLY

The Herndon Repeater Group

The Herndon Repeater Group held an ARRL/VEC exam session on May 7 in Sterling. Special thanks to Volunteer Examiners who assisted: George KR4CV, Will AC4AP, Joe K04EI, Rick WN3T, Duane K4UW and Mike WB8RDN. Also, thanks to Gary KD4SRX who provided talk in support and room set up/tear down assistance.

On Sunday, May 15th HRG sponsored a technical seminar on Shortwave Propagation During Periods of Low Sunspot Cycles at the Eastern Loudoun Regional Library in Sterling, Va. Ted Cohen, N4XX presented the two hour seminar in which he demonstrated how to predict and chart HF propagation, explained solar flux, and the A and K indecies. This excellent seminar was attended by nearly 20 hams and Ted gave us all hope that we would still be able to use the HF bands during the next several years of the low sunspot cycle! Additional seminars will be announced on the net, and all amateurs are invited to attend not only these seminars, but all HRG events.

HRG congratulates Mike KD41TK who upgraded to Extra at this session.

Continued on next page

LAUREL AMATEUR RADIO CLUB A Volunteer Examiner Coordinator

- **MEETINGS:** 4th Wednesday of each month (except November & December) 7:30 pm at 384 Main Street, Laurel, MD
- **SOCIAL:** 2nd Wednesday of each month (except December). Call for directions.
- **NETS:** 1st, 3rd & 5th Wednesdays - 8:20 pm on 147.225 (+600), no tone.
- **MAIL:** P. O. Box 3039, Laurel, MD 20709-0039
- **EXAMS:** 3rd Saturday of each month - 10 am at Maryland Radio Center.
- **INFORMATION:** Jim/WI3N-(301)725-6829 or Pud/W3DQI-(301)498-6293

The Laurel ARC held a special ceremony on May 24th on U.S. Route 1, just south of Murkirk Rd., near Beltsville, MD, to celebrate the 150th anniversary of the Samuel F.B. Morse first telegraph message, "What hath God wrought". Hugh Turnball/W3ABC, Director of ARRL Atlantic Division, was on hand to re-transmit the Morse message via CW to ARRL headquarters in Newington, CT and to send greetings from the Laurel ARC. The occasion also marked the re-installation and unveiling of the marker along Route 1, which noted this historical event on May 24, 1844. Jim Cross/WI3N, Laurel ARC President, reviewed the significance of the event for those attending and gave special thanks to those who had worked to get the historical marker re-erected. Those attending the ceremony included Tony Young/WA3YLO, FAR President and Mayor Frank Casula of Laurel, along with about fifty members of the Laurel ARC. Joe Mack/NA3T created two special "Morse Key" cakes for the occasion which were enjoyed by all, following the ceremony.

The club's May meeting on the 25th was held for the first time at 384 Main St. in Laurel at the Laurel Women's Club Facility. This location will be the club's regular monthly meeting place. Pud Reaver/W3DQI gave a brief talk about the National Traffic System and how to send messages.

On Field Day, the club will operate "W3DAD" as the club call sign, and will set up at the site near the Supplee Lane Park on Brooklyn Bridge Road. All are invited to join in the fun!

On May 21st, the Laurel VE Team tested 42

individuals at the Maryland Radio Center. Eighty one tests were administered and 24 individuals were upgraded.

73's de Roger/N3MIJ



HRG - Continued from page 36

Mike will now join the HRG Volunteer Examiner team at the next exam session on August 6. We are also still looking for someone to take over as educational coordinator for HRG's training sessions. If you are interested in helping out or for more information, listen to our Monday 9PM net, or call Mike WB8RDN.

The Herndon Repeater Group has a net for youths 18 years old and under. The youth net is every Wednesday at 7 pm on 145.310-. All young amateurs and those who are interested in obtaining their license are encouraged to tune in. If you don't have a license, ask a ham friend to help you participate on the net. If you have any questions about the net, they can be directed to David KD4YIJ.

Another Field Day has come and gone, and HRG would like to thank Nick KD6ADY this year's Field Day Czar for doing a great job. Everyone who participated in this year's event had a great time. Thanks Nick for a job well done! Next month I'll have more details on the event.

Any HRG member who, has any information which they would like to have included in future AutoCall articles, please send it to me at:

KD4MTW@N4WJN.#NOVA.VA.USA.NOAM

73's Mike KD4MTW

**WMA/FEDERAL SYSTEMS
(FORMERLY IBM)
AMATEUR RADIO ASSOCIATION**

- Meetings: First Tuesday of the Month that is a work day (5:45 PM - 7:00 PM) Building 182, Room 3C-51
- Next Meeting: During the summer, please call to verify!
- Packet: 145.75 MHz (Montgomery County RACES frequency), running TCP/IP netcode (WA3HYE-1)
- Information: Erinn Tordella/N3HSA (301)-640-4286 or leave VoiceMail in the Radio Room (301) 240-6877

Continuing in the "transition" vein, the WMA/FEDERAL SYSTEMS (formerly IBM) Amateur Radio Association (ARA) held its May meeting to discuss various options that may be available to us in the future. In other words, we discussed the fact that there is indeed "life after IBM"! Each of the members was encouraged to submit one or more suggestions regarding "next steps." In parallel, we are working to set up a meeting with Gil Gonzalez, the president of the new Loral Federal Systems (LFS) Club to invite him to one of our regularly scheduled meetings. In the meantime, we asked our officers and members to state their views and provide inputs to the president and management advisor with respect to the future direction of the ARA. At this time, we would like to express our appreciation to those members and officers (e.g., Roel/N3FJJ and Chuck/W3GQY) who took the time and made the effort to generously share their views with the Club as a whole.

Among the more interesting suggestions received was one put forth by Chuck/W3GQY who wonders—if in this day and age with increased pressure on businesses to become more profitable after the recent downturn in the economy—the traditional "on site" club remains the venue of choice for us. In browsing through the AUTO-CALL listing of "Member Clubs", one is struck by the fact that of the clubs listed and clubs writing club columns each month, perhaps only the (former IBM) WMA/Federal Systems Amateur Radio Association is closely associated with a "for profit" sponsor. Possibly, notes Chuck, now is the time for the ARA to consider whether a new sponsor is appropriate. Of course, there are always advantages and disadvantages to be weighed for every al-

ternative—and this is no exception. In this article, we'll try to be even-handed in describing the "pros" and "cons" of keeping the ARA on site at LFS versus pro-actively seeking an offsite venue as our primary base of operations.

One of our choices obviously is to advertise and recruit to attract new members to the ARA. This approach would probably work best in conjunction with forming a "joint venture" with another

local ham club—one that has already achieved "critical mass" and one that perceives our 25 years' worth of operational experience in the realm of Amateur Radio to be "value add"....

Another option may be to give consideration to moving the ARA and its hardware assets to an offsite, non-business location, open to licensed amateurs and guests alike. The advantage of this is that the club potentially would be more accessible in terms of building access, weekend hours, and so forth. The disadvantage to this approach is that it would effectively end a long tradition of continuous, on-site Amateur Radio operations at WMA/IBM (now Loral).

A third "choice" (some think the default) is basically to do nothing but sit back, attempt to "ride it out", and wait for "better times." The seeming advantage of this approach is that it probably "buys" an unspecified amount of "status quo" time for the ARA. The disadvantage of such a "wait and see" philosophy is that it does not address the very real issues faced by volunteer organizations attempting to survive in the '90s.

Regardless of the eventual outcome—in the final analysis—the choice(s) we make as a club should be predicated upon the premise that the objective of the ARA is to thrive ... (not just survive) ...

73, Erinn/N3HSA, President

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JOHN T. NUTTMANN, CPA

MADRAS

The Maryland Apple Dumpling Radio Amateur Society, Inc.

- MEETINGS: 2nd & 4th Thursdays - 7 pm; NBC Bldg., WKYS Conference Room, 4001 Nebraska Ave., N.W., Washington, DC 20016
- NET: 1st & 3rd Thursdays at 8:30 pm on 145.45 Mhz.
- REPEATERS: 444.100/449.100 Mhz - 145.45/144.85 Mhz.
- BBS: 145.030 Mhz Call sign: N3GKZ Alias: MADBBS (This is a closed BBS Station)
- MAILING: P.O. Box 2468, Wheaton, MD 20902
- INFORMATION: Hani Raad/AA3EI-(202)223-3925; Larry Ziecheck/N3GKZ-(301)984-6112; Jean Blacik/N3PLC-(301)984-6112

ITEMS OF INTEREST

Paul Wilkins/AB4CY, was our guest speaker at our May 12th meeting. Paul, as you know, writes "Elmers Corner" for AutoCall Magazine. His topic "It's About Time" was a very interesting and informative talk. We could have kept him there half the night listening to him talk about time and its beginnings. Thanks, Paul, you were great!

May 26th was our final meeting on preparing for Field Day '94. All of the committees reported on the progress of their various assignments and it looks like we're right on schedule.

The MADRAS Annual Picnic & Cookout has been scheduled for July 23rd this year. Once again, Michele Cimbala/WK3X, has graciously donated her spacious back yard and her home for this event. Food, drinks, fun and games will be the menu for the day.

Wishing all of you a relaxing July 4th weekend.

73's, Jean/N3PLC

**REMEMBER
OUR DEADLINE IS THE 5TH
OF THE MONTH PRIOR TO
THE MONTH OF
PUBLICATION**

MARYLAND EMERGENCY PHONE NET

- Meetings: Nightly, 1800 Local, 3920 KHz
- Directors: NF3X, WALQAA, W3DQI, KD3JK (Alternate)
- Manager: K30RW; Secretary: WA3YLO; Treasurer: KC3ZJ
- FAR Representatives: KC3ZJ, WA3FYZ

For those who haven't heard, V./B3GZU/George Aranow, one of our more innovative net managers in the mid 1980s, became a silent key on May 13th. George, a very active CW operator, reluctantly joined the SSB ranks to pass traffic, and for a few years was a very active member of the MEPN. After relinquishing the management, he slipped back into his old CW habits, and was very active on MDD and the Hit-and-Bounce nets. Donations in George's name to the Baltimore Symphony would be appreciated.

Speaking of memberships, K30NU/Bob Roberts is out of the hospital and back on the air and just as spry as ever. Great! Bob, glad to see it was 'minor'. Also, we welcome to our net KB3AZW/Mark Dudley. Mark has been checking in quite regularly tnx Mark for being the voice of Lexington!

K30RW/Jim Sell, net manager, is sponsoring the MEPN picnic this year at the Gun Club in Taney Town. Jim has the pavilion for the day, July 10th, the Sunday after July 4th, and we should be there for food (BYO) by noon. Of course, showing up earlier for some eyeball business is always in order. Jim says the talk-in frequency is 145.410 (-600). Directions will be available on the net anytime! A short business session will follow the chow-down.

Finally, the MEPN was well represented at the Laurel ARC's commemoration of the 150th birthday of "What Hath God Wrought", the first telegram, which was sent from the US Senate to Baltimore on May 24, 1844. WA3YLO/Tony, WA3FYZ/AI, and W3DQI/Pud were there, along with about 40 other hams, to watch W3ABC/Hugh pound out a message to ARRL HQs via straight key (and repeater and NMPN relay). We all had a good time, and thank the Laurel ARC for instigating the restoration of that roadside sign, which was situated just south of Laurel, the halfway point between the initial points of contact!

Hope to see you AT TBE PICNIC and ON THE AIR.....

73, W3DQI/PUD

Metropolitan Communications Network Radio Club

- Meetings: Quarterly, the second Sunday of the month.
- Repeater: N3AGB, 52.250 MHz in; 53.250 MHz out, Accessible on 147.36 and 444.35 MHz.
- On The Air: Saturday at 20:00 hours local time
- Mailing: Mrs. Mary A. Milligan, KA1KWP, 6608 N. 18th St., Arlington, Va. 22205-1802
- Information: Mrs. Mary A. Milligan, (703) 533-0650

Two months after Rick Weaver Jr., son of Rick Weaver, KA3BTD passed his test, and as of this writing, he still has not received his call letters from the FCC. The one consoling thought is, we learn that the delay is due to the increased number of new amateurs.

THE SUNDAY MORNING COFFEE NET (50.4 MHz) AT 9:00 HOURS

Although conditions have not been good recently, the six meter band has been open occasionally. Hamfests have reduced our Sunday morning net, but Stanley Brigham, W3TFA, with his DX activities; George Diering, III, N3FNF, with his gardening, as well as Sherwood (Woody) Clark, K3DLH and W. Joe Saunders, K3UAL, from his boating activities have taken time to check in regularly. Most recently, Stan, W3TFA worked St. Joseph Land and Argentina.

MARYLAND SIX METER SIDEBAND NET: Sundays at 20:00 Hours on 50.125 MHz

73's Mary Milligan, KA1KWP

Orders and Inquiries
5-9 PM EST
(301) 983-7752

Help Line
8-9 PM EST
(301) 869-6436

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The Mid-Atlantic DX and Repeater Association

- MEETINGS: By published schedule, generally the second Thursday of each month. Meeting locations rotate among places in Maryland, Pennsylvania, Virginia and West Virginia.
- ON THE AIR: 1930 Tuesdays on 147.66/06
- ADDRESS: 230 North Potomac Street, Suite 2A, Hagerstown MD 21740
- INFORMATION: Call our Voice BBS: 301-416-8447, select Box 101 and leave your message requesting club info.

The May MADRA meeting was held in Greencastle PA on Thursday, May 12. This was our first Pennsylvania meeting and had a relatively small attendance. We plotted strategy for Field Day and prepared for several repeater projects. The 147.06 repeater near Frederick MD now has a new antenna and feedline. Coverage to the west has improved greatly. We will be adding a new amp and preamp to this system very soon. The 147.345 repeater near Martinsburg WV is temporarily off the air while improvements are being made.

The MADRA picnic will be held on Saturday, July 23, at Greenbriar State Park, between Hagerstown and Frederick on US 40. All amateurs and their families are invited to come. This picnic meeting had been scheduled for June 25 previously, please note the change in date. Our July meeting is being held in Martinsburg WV at Hoss's Steak House on Queen Street. The date is Thursday, July 14th, at 7 PM. All amateurs are invited to attend both events for good food and good company.

We are looking forward to Field Day operations at a new site for us, near Fort Frederick State Park. This location is on Gehr Road which can be accessed from the Big Pool exit of I-70 for Maryland Route 56. For more information on the Field Day plans, leave a request on the Voice BBS, in Box 101 (number above).

**SUBSCRIBE TO
AUTO-CALL MAGAZINE
TODAY!**

MOUNT VERNON AMATEUR RADIO CLUB

- MEETINGS: 2nd Thursday of each month, 7:30 pm (except December) Mt. Vernon Governmental Center; 2511 Parker's Ln., Alexandria, VA.
- REPEATER: WD4PDP/R 146.055 input, 146.655 output.
- NETS: Every Tuesday at 9 pm. Starts on 2-meter then moves to 10-meter on 28.408.
- INFORMATION: John /KI4HK-(703)780-2882 or Julie/KD4WSZ-(703) 799-9466
- TRAINING CLASSES: John Forrest/WZ4A-(703)971-3905
- TESTING: 2nd Saturday of each month at 9 am. Robert E. Lee RECenter in Lee District Park, 6601 Telegraph Rd., Alexandria, VA
- MAILING ADDRESS: Mt. Vernon Amateur Radio Club (MVARC); c/o Joe Salemi/KR4CZ, P.O. Box 7234, Alexandria, VA 22307.

Remember the snow storm of '93? The snow/ice storm of '94? Skywarn does and they were there relaying weather warnings. Jorge Thevenet/KD4DGQ and Dan Gropper/KC4OCG spoke to a rapt audience at the May meeting about the whys and wherefores of Skywarn Net Control and the National Weather Service.

Harley A. Myers/KE4JOV was the guest of MVARC in May. Welcome! Please join us again!

At the May meeting MVARC invested a panel of new officers as follows: President-Bill Schmitt/KD4CNS; Vice-President-Luis Villalobos/KC4NUE; Secretary-Glenn Bilger/W4OCC; Treasurer-Joe Salemi/KR4CZ. Dan Burns/N4YKD is now the Contest Coordinator. Call Dan at (703)354-1677 for upcoming contests.

MVARC looks forward to participating in various events. Call Steve/WB4EEA 780-7248 for details about the spring through fall calendar. Ask about the flyer he has listing the dates and events. Also, listen for the Public Service announcements on the 145.91 repeater, Wednesday evenings at 8:30 pm (2030 hrs.).

Kudos from new licensees and upgraders to MVARC for continuing availability and professional-

ism at their testing sessions. The only question is: When do the Licenses arrive?

Testing: second saturday of every month. Code and written, all levels. At Lee District Park in Alexandria. No charge and walk-ins are welcome. Call Frank/N4GUS at (703)455-1510 for information or if you are interested in being a VE or helping at the exams. You do not have to be a VE to help out. Please arrive between 9 and 10 am for testing.

MVARC'S NEXT MEETING: JULY 14, 1994
- 1930 HRS. (7:30 PM)

73's, Julie/KD4WSZ

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We have a **LARGE** selection of these items in stock and we ship via UPS & USPS. We also look forward to seeing you at most hamfests in the Autocall subscription area.

TNX es 73 de Kevin, N2KXX - Pres.

NORTHERN VIRGINIA FM ASSOCIATION

- Meetings: Fall, Winter, Spring
- Weekly Nets: NVFMA, Wednesdays - 8 pm, 146.79-ARES, Sundays - 9 pm
- 146.91; Equipment Clinic - 1st Wed. of Month, 7:30 pm - 146.79
- Repeaters: 52.37/53.37, 146.19/146.79, 146.31/146.91, 222.50/224.10 XLink, 222.74/224.34, 449.75/444.75, 1272.1/1292.1.
- Membership Info: Ann Herlich/KD4GSU - (703)481-1458
- Mailing Address: NVFMA, P.O. Box 486, McLean, VA 22101.

Topics addressed during our June 2nd General Membership Meeting included the following: Two video tapes shown: Lightning protection devices by Polyphase, and TEN-TEC Corp and their Ham gear. FM Equipment Clinic suspended June thru August, to be resumed in Fall '94. Membership renewals due early July - new Autopatch Code in effect around July 1st. WA4OGH & KC4YXB received special awards for recent public service in aiding a seriously ill traveler. 146.91 remote planned for Bull Run Mtn- 50% completed. 444 remote planned at same location. KD4SJJ discussed GPS-based Automatic Packet Reporting System. Mike/KB4CVL discussed costs associated with maintaining and enhancing NVFMA's repeater system.

After much discussion, attending members, qualifying as a quorum, passed the motion made to increase the annual dues from \$12 to \$20 per annum. After meeting adjournment, the Board of Directors agreed to reduce the one-time initiation fee from \$10 to \$5. Door prizes were won by five lucky members, e.g., repeater directory, textbook, small(mobil-type) speaker, MFJ Clock and VSWR/Power Meter. Technical committee is working on sporadic interference on 444 repeater.

73's, Ann/KD4GSU

FOUNDATION FOR AMATEUR RADIO
P.O. BOX 7612
FALLS CHURCH, VA 22040-7612

THE CAPITOL HILL MONITORS NET

6912 Prince George's Avenue
Takoma Park, MD 20912-5414

- MEETINGS: 1st & 3rd Mondays of each month
- REPEATER: Northern Virginia FM Association - 146.91 Mhz
- NET: The "Capitol Hill Monitors Net" at 7:30 pm
- BBS: (703)207-9622 [8-N-1]; Frequency Forum computer.
- INFORMATION: Alan Henney-(301)270-2531 or John Korman-(301) 299-5455.

Starting June 13, 1994, the "Capitol Hill Monitors Net" will be back on the air with John Korman/N3RDC acting as the new control operator.

This net is a sidekick to the monthly newsletter the "Capitol Hill Monitor". The newsletter contains information concerning scanner frequencies and updates on public events. Discussions on the net will include check-ins, shortwave and scanner issues along with a swap session on equipment ranging from modems to magazines.

We welcome one and all, and we hope it will be a success!

73's, John N3RDC Korman

Please Send Your Club Column And Shack Sale Items To:

Doug Allen - Editor
Auto-Call Magazine
8008 Shadow Oak Lane
Pasadena, MD 21122

PLEASE REMEMBER!

The deadline for submissions to Auto-Call Magazine is the 5th of the month prior to the month of publication. If you do not see your club column or shack sale item listed in the month it was intended for, it was not received by the 5th of the month prior.

PRINCE GEORGE'S WIRELESS ASSOCIATION

- MEETINGS: 1st working Tuesday of each month-7:30 pm, American Red Cross Service Bldg., 6206 Belcrest Rd., Hyattsville, MD 20782
- CLUB STATION: K3CEZ
- MAILING: 4109 Kennedy Street, Hyattsville, MD 20781
- INFORMATION: Frank Holton/WA3ZMW-(301)927-1245

PGWA held its regular monthly meeting on Tuesday, May 3, 1994. There was a 75% showing of members. Frank/WA3ZMW opened the meeting and Dan/W3SWD read the minutes of the previous meeting. Charles/KA3COT gave the Treasurer's report with old and new business following.

Chuck Sommer/N4OSD, the newly elected President of the Foundation for Amateur Radio, Inc., was present for a short period and delivered sets of Call Books for members of the Club. Chuck had another meeting to attend and left early, but not before he did his good deed. Congratulations to Chuck and many thanks from the PGWA Club members for his thoughtfulness.

After the regular business meeting, members retired to the Radio Shack, K3CEZ, where WB3KXL hooked up the packet station and showed many of us how to operate it. Thanks to Dave Black/WB3KXL for all of his help. We surely appreciate the time he spends instructing us in packet operation.

On Thursday, May 12, 1994, Frank/WA3ZMW and Charles/KA3COT attended a luncheon given by Sheriff Aluisi of Prince George's County. The luncheon was by invitation only in honor of the Boy Scouts of America. The affair was held at the Holiday Inn on Route 1 in College Park, MD. This in part was to see if area Scouts would be interested in Amateur Radio and what Prince George's Wireless had to offer. This common interest will be discussed at the next business meeting on June 7, 1994.

Thanks to Dan/W3SWD, Larry/N3EYE, Frank/WA3ZMW and Charles/KA3COT for taking part in the program. Yours truly was attending the Navy Amateur Radio Club convention in Norfolk, VA or I certainly would have been there.

Springfield Estates Elementary School Amateur Radio Club

LEARNING TO BECOME A HAM RADIO OPERATOR

By Jenny Tison, Still Waiting for a Call Sign

My name is Jenny Tison, I am a fourth grader at Springfield Estates Elementary School. My parents accompanied me to back-to-school night this last September where we saw the sign-up for SEESARC (Springfield Estates Elementary School Amateur Radio Club). I had learned about SEESARC from one of my classmates (Brian Johnson, KE4CLB) in school and Sunday School and it sounded fun. My dad agreed to sign-up with me and attend the first club meeting.

We went to the first monthly club meeting in the first week of October -- where we were joined by other prospective members of the club. We learned at this meeting about the club's "Novice" meetings, which were held every Friday night (except for the club meeting nights) from 7:00 pm to approx. 8:30 pm. I still thought it was a great idea to join the club but my dad probably had some doubts!

For the first $\frac{1}{2}$ hour we practiced Morse Code, which was instructed by Keith Ward. For the rest of the time, we studied theory instructed by Bill Schmidt. We also used the ARRL video cassettes in class which really helped. For homework, we were given SuperMorse to practice on our home computer. We also got the novice/technicians test battery on the computer to practice. We tried to practice at least ten minutes on Morse each night and several times each week on the test battery. Somedays we were better than others.

We worked the hardest on Morse Code and after about 5 months we were ready for the tests! We decided to take the Morse Code test first in Vienna, Virginia and passed our Morse Code test in February. Two weeks later we took the theory test in Mount Vernon and passed that as well. I got my Novice License and my Dad got his Tech Plus (he had made it by 1 question, and I had missed it by 1 question). I am now a fully qualified Ham radio operator!

I've participate in round-ups at school and really enjoy HAM radio. We will be moving to Sasebo, Japan this summer where I hope to get a packet radio and try to communicate with the club in Springfield, Virginia. All I need now is my license.

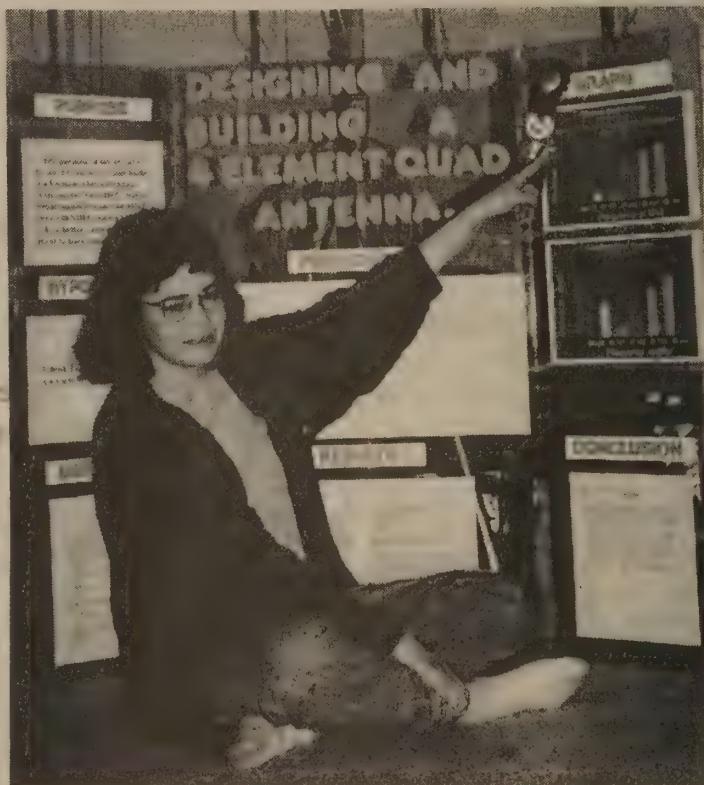
SOUTHERN MARYLAND AMATEUR RADIO CLUB

- Meetings: 2nd Friday of each month at 1930 at the Church of the Nativity, 5203 Manchester Dr., Temple Hills, Maryland. Nets: Tuesday at 2000 on 147.15+ Repeater; Wednesday at 2000 on 1.865 (+/- QRM); Thursday at 2000 on 28.447 USB. PG ARES: Wednesday at 2100 on 147.15+ Repeater. All are welcome to join.
- Repeater: W3PT/R 147.15+, Cheltenham, Md. Autopatch to 911.
- Mailing: P.O. Box 273, Cheltenham, Md, 20623
- Information: Vic & Linda Curtis, WA3YUV & KA3VNI (301) 888-1388

Summertime is finally here with a vengeance. From the traffic on the repeater lately, everyone clearly is very busy, making up for those ice bound days which seem to be like yesterday. With so many of our members up and around these days plus the increased number of visitors to our repeater, a few comments about repeater courtesy is in order. Everyone is welcome to use the machine but make sure you allow for a pause between transmission to allow for anyone with an emergency to make a call. Remember that the emergency phone codes should not be given out over the air. Each member has the proper procedures for activating and shutting down the emergency access. If someone has a legitimate emergency, don't hesitate to assist them by activating the system and shutting it down upon completion. Make sure you have explained the proper operating procedures before activating the system. Also keep in mind that 911 should only be used for emergencies. Non-emergency calls should be made to the designated non-emergency telephone numbers. Another point to keep in mind is that our repeater has significant geographic coverage. If you are within simplex range, use it. Tieing up the repeater with traffic which could be handled on simplex is not only poor operating technique but is not an effective use of our repeater's capabilities.

Last month we mentioned about Jo Ann Simpson's winning her school's science fair with a 2 meter cubical quad. Jo Ann, KA3WPD, was first licensed in 1990 when she was only 10 years old, achieving general class by age 11. She is reportedly SMARC's youngest member and the youngest to go through SMARC'S novice class. Jo Ann's science fair radio-related projects did not just begin this year. Last year she entered an operating direction finding antenna system which too her to the regional science fair finals. This year, building on the same these, she decided to develop a 2-meter quad which she could also use for her new packet station.

Her research took her to the ARRL Antenna Handbook, the Satellite Experimenters Handbook, and the ARRL Radio Amateur Handbook for the antenna dimensions and formulas. Using this information Jo Ann diagramed her antenna. With a little logistical support from her dad, Day - WI3A, Jo Ann constructed her prototype. As with all antenna projects, the hardest part is the testing. A valuable lesson was learned about testing antennas inside, they tend to react to the environment. Metal objects like tables or shelves tend to have a significant, and rather erratic, effect on antennas. These problems where overcome by outside testing which allowed for finer adjustments. Her efforts were rewarded with a broadband response all across the 2 meter band of 1.5 to 1 or better as well as an excellent front-to-back ratio. She wrote up all the findings and, as you can see from the photograph, made a classy presentation. The antenna was shown at a recent club meeting where the requests for duplicates stacked up. We don't know if she will honor these requests but we do know that she has a very effective packet antenna which seems to work better with that winner's ribbon on it. Of course this is until her Dad "Procures" the antenna for use by his favorite easy chair. As for Jo Ann, she is happy working HF CW and is already planning next year's entry.



The club is planning a number of events for the summer, so keep an ear to the weekly nets for information. If you can help with any of the activities or are interested in taking an active role in the club, volunteer as club Secretary. If interested, contact Allen - KA3ZPA.

For this month, that's all from SMARC country.

73, Greg - WA3FSC

SOUTHERN PATUXENT AMATEUR RADIO CLUB

- MEETINGS: 2nd Wednesday of each month at 7:00 pm, Southern Community Center, Lusby, MD.
- NETS: 28.410 Thursdays 8:30 pm & 147.195 Tuesdays 8:30 pm.
- REPEATERS: 29.62- N3AGB Hollywood; 147.390+ N3JTO California, Autopatch; 146.985- W3ZNW Sunderland; 147.195+ N3JTG Leonardtown; 443.30+ N3AGB St. Leonard, Autopatch; 449.225- KA3ZYG Leonardtown. ADDRESS: P.O. Box 399, St. Leonard, MD 20685
- INFORMATION: Steve Franc-(301)373-3605 or Dwayne Kincaid-(410) 586-2177

In the Classrooms:

Steve Hempling/N3IPN and Mark Bailey/KD4D have just wrapped up the spring Novice and Tech Plus classes at Plum Point Middle School. The class graduated over 15 new Amateurs at the exams on May 26th.

“Operation Upgrade” was a mild success. The General, Advanced and Extra classes produced 8 new Generals, 7 new Advanced and 2 new Extras over the 14 week course. Instructors Marty Gary/N3HRT, Steve Franc/AA3AN and Dwayne Kincaid/WD8OYG finished the classes with hopes of creating more instructors and HF Operators.

Field Day:

This year's Field Day will be held at Dorsey Park (near Hollywood, MD). We plan to be class 12A with special dedicated stations including satellite, RTTY and packet. A full blown cookout under the pavilion and outdoor camping will provide plenty of excitement for the event.

Hamfest:

Southern Patuxent members are preparing for the 4th annual Southern Patuxent Hamfest this month. This year's addition to the Hamfest is the Show Place Arena, a 125,000 square foot, airconditioned, indoor facility. The Hamfest will use about 40,000 square feet of space on the main floor and concourse this year and still have room for expansion.

Repeaters:

The new N3JTO phone patch repeater was

placed on the air last month. The repeater had operated on the builders channel for several months before making the move to 147.390. The new CAT-300DX controller was installed the same week as the frequency change. The controller features a 105 number speed dialer, voice synthesizer, talking clock, keypad tester and scheduler.

Upgrades coming in the next few months include a remote receiver, avoting system, battery back-up and an increase in power.

THE SHENANDOAH VALLEY AMATEUR RADIO CLUB W4RKC

- Meetings: First & Third Friday of each Month 7:30 PM
- Place: The Collins building 2129 Grace St. Winchester
- Repeater: 146.22/82 W4RKC
- Net: SVEN 7:15 PM Daily 146.22/82
- Information: George Ritter W4UGX 703-662-0157
- Club Pres.: Irvin Barb KD4BHV
- Address: P.O. Box 139, Winchester, Va. 22604

This spring has been a busy time for the SVARC. The Spring Fever Biathlon went very well. We appreciated the solid help from Stan KD4HRJ, Danielle KC4SUV. Bill KF4HP. John KC4YMR, Jim KE4JJR, Jane KD4IET, Irv KD4BHV, Walt WA4HVU and Conway KD4HRK. The Apple Blossom 10K race through the streets of Winchester went off without incident, also helping with that event was; Jerry W6IHG, Olin WA40YD, Charlie K4LWG and Mark KD4HRI.

By the time this gets to press the Old Dominion 100 Mile endurance run in Fort Valley will once again be history. There will be entrants from the four corners of our nation and from Canada to compete. The race begins at 4 AM on Saturday morning and for the front runners it will be finished at 5 AM the following morning.

We especially want to thank Sandy WB5MMB for his generous help in providing his portable repeater for these Fort Valley Events.

Continued on next page

We are all very saddened to report the passing of Bettie Johnson, N3PNW on June 1st, 1994. The Bettie and Walt Johnson team made immeasurable contributions to this Club over the years. Bettie, while not a licensed ham for most of her membership term spanning more than 10 years did obtain her license about one year ago. Bettie always handled the Dingo for our Hamfest and the arrangements for all of our social functions of the Club. Bettie will leave a void that will not be easily filled in or organization.

We are very happy to report that after considerable efforts by dedicated Club members over a long period of time, the SVARC has been asked by the Winchester Medical Center to proceed with development of technical criteria and procedural concepts to be employed by the Amateur Radio community in support of the Winchester Hospital in times of emergency. At a meeting with Hospital officials and members of the SVARC on May 31st, 1994, Fred Wetzel, W4KRT, Ed Richt K3THD and Rick Choy N3HXT, were given the go ahead to develop the systems and procedures that will be used to facilitate this support.

From the training department, Guy Black, W4PSJ, kicked off a beginners licensing course on May 26th to include six sessions with a completion date of June 28th, 1994. The Class started off with 13 students. Guy hopes to have the exams at the final session or within a couple of days following. If all goes well, by publication date we should have about a dozen new Hams.

Godfrey, N8GM, is completing plans for Field Day which will be held at Guy Blacks mountain top hideaway at Spring Gap mountain near Slanesville, WV. The site is one beautiful location. The real beauty is that lots of antennas are in place, and the cottage there has all the creature comforts. Be sure to take your camera, the views are incredible.

Thanks to those individual members who contributed food items to the Lord Fairfax Food Bank during the drive in May, 94. Our Club succeeded in collecting and delivering nearly 200 lbs. of food for this worthy cause. A special thanks to Irv and Jane for taking charge of this project.

VIENNA WIRELESS SOCIETY

- Meetings: 2nd and 4th Fridays of each month, 7:30 PM, Vienna Community Center, 120 Cherry Street S.E., Vienna, VA
- Repeaters: K4HTA/R 146.085 in/146.685 out, 443.375 in/448.375 out
- Nets: Vienna Emergency Net every Wednesday at 7:30 PM, 146.085/146.685. Pow Wow Net every night, except meeting nights, at 9:00 PM on 28.444 Mhz. Slow Code every night, except meeting nights, at 8:30 PM on 28.390 Mhz.
- Information: Brian Bayus-NIKCE, (703) 264-1180
- Training Classes: Paul Wilkins-AB4CY (703) 560-2779

There have been several changes in VWS personnel. Jim Dickson-WI4W has assumed the duties of Repeater Committee Chairman. We welcome Jim's assistance and look forward to having the benefit of the experience and wisdom he brings to this assignment. Gene Jacob KM4FJ, our new VEN Net Manager, is now charged with overseeing the continued smooth running of our Wednesday night training exercise. Thanks to both for their willingness to step forward to fill these important slots.

The much anticipated "Fox Hunt" organized by our Special Projects Chairman, Dick Barto-KD4DGV, has been rescheduled to June 12th. The postponement will give us more time to get those "special" DF antennas designed and built. The Fox will really be on the run!

Of course, Field Day is the big event in June for all of us and our Field Day Chairman Paul Wilkins-AB4CY is seeing to it that we are not only ready to demonstrate our emergency communications capabilities but will also have a great time as well. Nothing like eggs and bacon at 6:00 AM on Sunday morning at Burke Lake Park, after being up all night! What about the Eggs Benedict? Hi.Hi.

That's all for now.

73, Brian-NIKCE



Silent Key

MEYER, STUART F. - W2GHK, died of a heart attack May 21, 1994, at his home in Vienna, VA. He was 76 years old.

Stuart was the chief engineer for the Hammarlund Corp., later its president. He directed design and installation of the first cellular land-mobile radio system in Detroit, MI. in the early 50's. He was also the author of numerous published papers relating to land mobile radio communications and Amateur Radio.

He was a past president of The Foundation for Amateur Radio and QCWA, Director of the Radio Club of America from 1972-75 and the recipient of the Radio Club of America's *President's Award* in 1983.

JOHN DANIEL BURCH - W3JBU, died of a stroke on June 1, 1994. He was 72 years old. A resident of Stevensville, MD, John was retired from NSA. He was a member of the East Coast Amateur Radio Service and the ARRL.

Widow's Assistance Program

The Foundation's Widow's Assistance Program has been in operation for many years and has accomplished a great deal for the families of our Silent Keys. The program offers to help widows (and other family members) evaluate and dispose of radio equipment in an Amateur's estate. Listings of Estate Sales are carried in the Shack Sales of Auto-Call magazine free of charge, and major items may be offered for sale at local hamfests, etc. No fee or commission is charged the families.

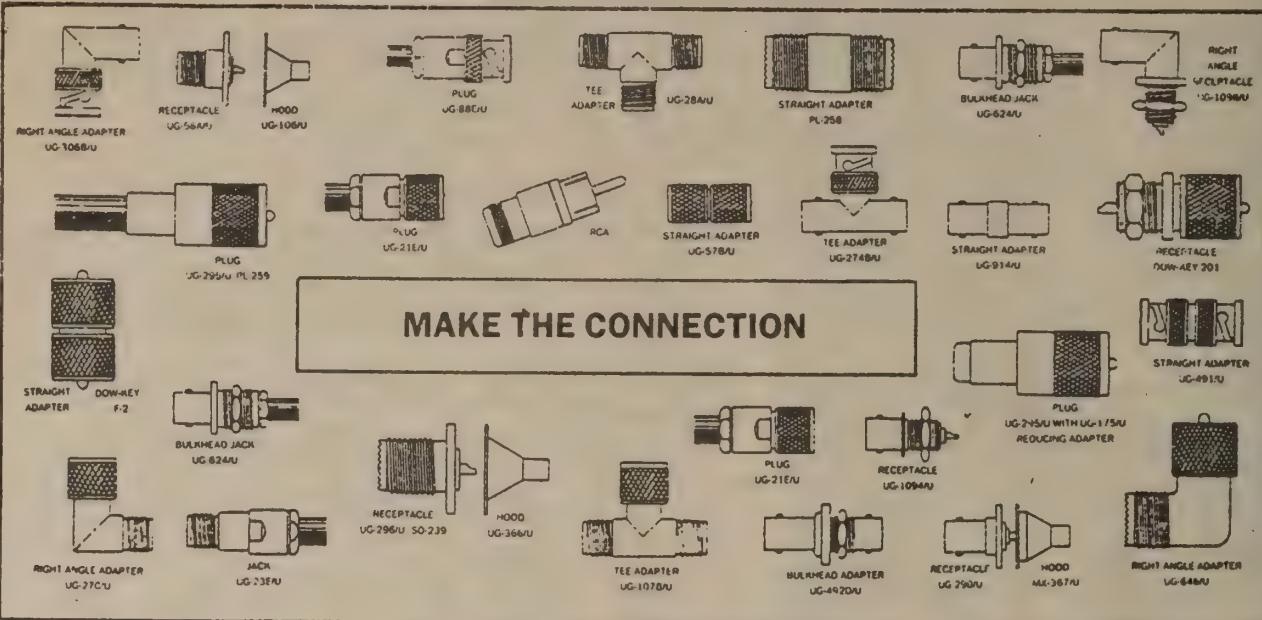
One other option that should be considered is donating equipment to a club taking a tax write-off for the charitable contribution. The Widow's Assistance Program can help you find a club that will make good use of the equipment. Some commercial operations are also willing to purchase the complete list of equipment and clear everything out at once. This may be the quickest solution in disposing of an estate.

Every ham is encouraged to maintain a list of his/her radio equipment, with realistic evaluations, and instructions on the disposition of any specific items you would like to have go to a special person or organization. Keep your family advised of your wishes.

For more information about the Widow's Assistance Program contact any local Foundation member club or call (301) 262-1917.

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Estate sales for Widows assistance handled by a FAR club will be published without cost.

Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone and all ads must be pre-paid. Ads that will be running for longer than 1 month must be accompanied by a letter stating the length that the ad is to be run. Since no effort is made to investigate advertisers, no warranty can be applied.

ALL ADVERTISING & SHACK SALES - COMMERCIAL AND NON-COMMERCIAL SHOULD BE SENT TO:

Doug Allen, Auto-Call Editor
8008 Shadow Oak Lane
Pasadena, MD 21122
(410) 437-6258

Copy MUST be received by the 5th of the month prior to the month of publication.

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Kenwood TH-225A 2-Meter HT with TSU-4 Tone Decoder, SMC-31 Spkr/Mic., PB-1 12VDC 800 mAh Battery, LH-5 Deluxe Leather Case, PG-3E Filtered Cigar Lighter cord, BC-7 Rapid Charger and Larsen 5/8 Mag Mount Antenna - Guaranteed good as new. Call for details - AG3V (410) 329-6725.

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HEATHKIT Antenna Tuner HFT-9A assembled/ New, Manual included. \$15.00
VIBROPLEX Bug Serial #177863. \$25.00
Connor CP-3000 - 40 Megabyte Hard Drive. \$25.00
For above items Call Dick/K3TND at (301)384-6366.

FOR SALE

For collector. Johnson Viking II (with manual), old Gonset Communicator, box of tubes, old multi-band radio without cabinet, Messner Signal Shifter "in disarray". Call (301) 946-1985, Rockville, MD.

FOR SALE

New HY-GAIN T2X Rotator, Rohn 54' Heavy Duty self-supporting tower, New HY-GAIN 2BDQ 80/40 5KW trap dipole (approx. 85'), New PALOMAR 2K 1:1 6KW BALUN, New TEN-TEC 5061 1.5KW Low Pass Filter - Call for details - (410) 329-6725

FOR SALE

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Astron RS-20M 13V. P.S., \$80.
Dentron GLA-1000B P.A., \$250.
4 new 6JE6/6LQ6 sweep tubes, \$80.
Dentron KW Super Tuner 160-10, \$80.
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Autek QF-1A Audio Filter, \$45.
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FOR SALE

Kenwood TS-520S with Shure 444 mic., IRC CW filter, VFO, 2ea 6146 & 1ea 12BY7, \$475. Heathkit 2036 2-Meter Mobile Rig, \$75. MFJ-407 Electronic Keyer, \$40. Call Chris/KD4LST (703) 960-5155 (Leave Message).

FOR SALE

TANDY 1000TL desktop computer, 32MB hard drive 720MB 3.5 floppy, 2400BPS internal modem, mouse, CM-11 color monitor, desktop power switch/surge protector, printer cable, with MS-DOS 6.2, Norton Utilities 7.0, Procom Plus 2.01, Wordperfect 6.0. Guaranteed like new. \$75.00
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FOR SALE

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FOR SALE

QST'S: October 1916; May, June July & August of 1917; July, August, September & October of 1919. Plus some issues in 1921, 1927, 1935, 136, 1964 & 1970. CQ: June & November 1945, January & February 1947. ARRL HB for 1970 & 1977. Contact Bob Arrowsmith, P.O. Box 166, Annandale, VA 22003 or Call (703) 560-7161.

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You can list your Shack Sale Items in Auto-Call Magazine for just a few cents per month.

WANTED

For cash - your surplus vacuum tube inventories. Small or Large accessories for the Galaxie GT 550 Transceiver. 500 Watt Plus Dummy Load HF Transceiver. Contact: M. Levy/W5QJT, Anytime (813) 791-4703. 2310 Denmark St., Apt. 62, Clearwater, FL 346623.

WANTED

Dead Atlas 210 or Drake TR-7. Contact : Tad/ KB4TUW, 3032 Park Ave., #3, Richmond, VA 23221-1633. Phone (804)358-3732, after 7 pm.

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For my Ham Tag Collection: An expired DC car license tag with Amateur Call Sign. Cash or Trade. Leads appreciated. Willard Prentice/W3VBM, 2419 Chetwood Circle, Timonium, MD 21093. Phone (410) 252-6287.

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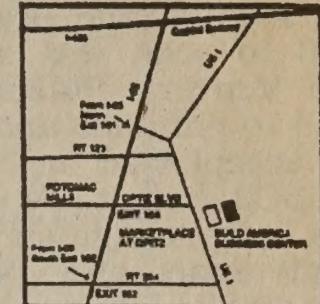
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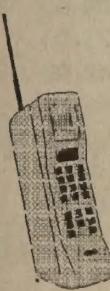
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Copy for Auto-Call will be accepted in any form - handwritten, typed, compatible computer disk or modem. All hard copy is reformatted to preserve uniformity of style in the magazine. We use Word Perfect 5.1 for Windows for word processing, Ventura Publisher for page layout and CorelDRAW 3.0 - CD-ROM for Graphic Design. We also use a Full Page Scanner with WordScan OCR to scan text and graphic's directly into Ventura Publisher. Photo Styler is used to enhance and halftone images. We will accept 5.25" or 3.5" MS-DOS diskettes in ASCII format. Type all headers, bylines and body text flush left with no margins. Single space after periods, do not indent paragraphs and double space to begin new paragraph. If you have any questions please feel free to contact: Doug Allen - (410) 437-6258.

In determining space requirements, figure about 700 words per page (50 lines at 12 words per line) - not including the space taken up by headings, photographs, etc. Either black and white or color photos can be used as long as the contrast is good. Master copy, which is to be reproduced directly, should be in black ink on white paper and should be in proper page ratio, (Copy space is 7" wide by 9" high). Copy can be reduced or enlarged as necessary.

SHACK SALES

Deadline for copy is the 5th of the month preceding the publication date. Shack sales will NOT be accepted over the telephone. Full address must be provided for our reference but need not be published. Each ad must include the full name of the advertiser. If the full address is not included, we prefer to include the city along with the telephone number so that readers will know whether a long distance charge is involved. The entire telephone number - including city and state - is counted as only one word. We do not count postal zip codes. Otherwise, each word, abbreviation, model number or group of letter/numbers is counted as one word. Remittance must accompany each ad.

See next column for additional information on advertising. For further information, please phone the Auto-Call editor at (410) 437-6258, Pasadena, MD.

ADVERTISING

SHACK SALES

Non-commercial advertising of Amateur associated equipment is available to subscribers of Auto-Call at 3¢ per word - with a \$1.00 minimum. Commercial vendors and non-subscribers rate is 17¢ per word - with a \$5.50 minimum.

Special headings or special spacing may be used (e.g., one item per line) but such ads are charged at a column inch rate - \$1.00 per column inch for non-commercial ads, \$5.50 per inch for commercial vendors and nonsubscribers

Commercial vendors should include the ad size and length of run (e.g., 1 year, 6 times, etc.) on company letterhead and it must be signed by the person authorizing payment for the ad. Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone. Since no effort is made to investigate advertisers, no warranty can be implied.

DISPLAY ADS

DISPLAY ADS are "boxed" and may contain artwork or photographs. They may be placed along with the shack sales or displayed in other sections of the magazine. Requests for specific locations will be honored if practical but cannot be guaranteed.

Display ads are charged according to size and duration of run as shown below. All advertising must be prepaid for at least the current month.

Page	Col.inch	Rates per Issue			
		1 Year	6 Times	3 Times	1 Time
Full	16	\$75.00	\$90.00	\$100.00	\$105.00
1/2	9	55.00	65.00	71.00	75.00
1/3	6	40.00	46.00	51.00	54.00
1/4	4½	33.00	38.00	41.00	43.00
1/6	3	22.00	26.00	28.00	30.00
1/8	2½	17.00	20.00	22.00	23.00
1/9	2	16.00	19.00	21.00	22.00
1/18	1	8.50	10.00	11.00	11.50

Based on camera-ready copy

Extra charge for halftoning photos
and for in-house artwork and layout.

Copy must be received by the 5th of the
month preceding publication date.

(e.g. Copy for November issue must be received by 5th October)

ALL ADVERTISING MUST BE PRE-PAID



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QST, QSL Bureau Awards, Low Cost Insurance, Operating Aids, Government Liaison and More—Much More!

MEMBERSHIP APPLICATION

NAME _____ CALL _____

STREET _____

CITY _____ PROV./STATE _____ PC/ZIP _____

\$30 in U.S. \$42 elsewhere (U.S. funds). Individuals age 65 and over, upon submitting one-time proof of age, may request special dues rate of \$24 in the U.S. \$36 elsewhere in U.S. funds. Persons age 21 and younger may qualify for special rates, write for application.

For postal purposes, fifty percent of dues is allocated to *QST*, the balance for membership.

VISA, MC, AMEX, DISCOVER # _____

Signature _____ Expires _____

**The American Radio Relay League
225 Main St.
Newington, CT. 06111 USA**

AUTO-CALL

Atlantic Division Director
Hugh Turnbull, W3ABC
6903 Rhode Island Avenue
College Park, MD 20740
Phone: (301) 927-1797

Roanoke Division Director
John Kanode, N4MM
Rt. 1, Box 73-A
Boyce, VA 22620
Phone: (703) 837-1340



AUTO-CALL Magazine

P.O. Box 7612
Falls Church, VA 22040

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Subscription rate: \$8.00 per year.

(Sample Copy of latest issue \$1.00)
will be applied to subscription

NAME _____ **CALL** _____

ADDRESS _____

CITY _____ **STATE** _____ **ZIP** _____

Make check payable to the Foundation For Amateur Radio

JULY



						1	2
3	4	5	6	7	8	9	
Adams County D.O.S.	Antietam IBM PG Wireless	BARC MARC	Anne Arundel Simmit VOA	Alexandria SMARC Vienna	Stafford	Stafford	
10	11	12	13	14	15	16	
Carroll Cnty PVRC	Frederick Farquier Leisure World Woodbridge	Pentagon **FAR** S. Patuxent	AMRAD MADRAS Mt. Vernon N. VA QCWA 150	Rock Creek Shenandoah	Capitol City Stafford		
17	18	19	20	21	22	23	
Culpeper Ole VA Hams Sterling Park	Antietam Arlington BRATS	BARC Goddard MARC QCWA #137	Anne Arundel QCWA 20	Central MD Vienna	Moose Stafford		
24	25	26	27	28	29	30	
	Columbia	Laurel		MADRAS St. Mary's			
31							

AUTO-CALL
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Falls Church, VA 22040-7612

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33

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